Relativity's Tenuous Tenability

Ken Gonder* Unaffiliated Independent (Prepared for viXra.org open-access repository 7/25/2024)

Abstract

Relativity is believed by most to be a seminal moment in scientific achievement. It continues to form the basis of our entire cosmology, including the big bang. Even so, many of its declarations are manifestly contradictory and metaphysical. Its lingering discrepancies, inconsistencies, and seemingly unresolvable conflicts elicit a myriad of questions that have up to the present been more ignored and rationalized by conditioned beliefs than soberly confronted and rationally explained through rigorous objective logic. For the dissenting, this casts further doubt on its veracity and arouses even more skepticism while faith-based adherents remain dismissive, complacent, and preemptively unswayable. Bridging the growing divide and arriving at a workable consensus does not appear possible any time soon. With relativity permeating popular culture and firmly entrenched in academia's pervasive obligatory groupthink, uncompromising independent investigation that maturely and realistically explores the tenability of its many conspicuous incongruities seems the only practical way forward for those seriously pursuing reality.

Contents

| Abstract | 1 |
|----------------------|----|
| Problematic Precepts | 3 |
| Conclusion | 17 |
| Declarations | 19 |
| References | 19 |
| Ancillary References | 21 |
| Bibliography | 22 |

Problematic Precepts

Even just a cursory but truly objective analysis of relativity will quickly elicit a myriad of elemental questions. Many of which threaten its underlying tenability, which academia even now after all these years still hasn't satisfactorily addressed:

- How can light's velocity be fixed, which is assumed to remain the same for every object/reference frame regardless of motion (relativity's founding premise), when it always departs a moving source at the same rate in every direction at the same time as evidenced by all of the Michelson-Morley and Sagnac type experiments? They record its velocity as 186,000mi/s in the direction of motion and perpendicular (or any angle) to that motion simultaneously despite the Earth's rotation and orbit, our solar system's motion through our galaxy, and our galaxy's motion through the universe [1][A]. (Use [Alt][←] to return.)
- How can Einstein reason light's slowing in the direction of motion, time's corresponding slowing/dilation, and an object/reference frame's corresponding length contraction in the direction of motion (special relativity's effects), all to maintain his assumption of light's constancy, when an object/reference frame's contraction would occur only in the direction of motion (one-dimensionally) while time's slower rate would have to apply equally in every direction (three-dimensionally) over any entire object/reference frame? How would this not cause an irreconcilable difference between an object's length and width [2][A]?
- How can light's velocity remain fixed regardless of motion when time's slower rate, that's deemed necessary to enforce light's constancy in the direction of motion, would have to also apply in the perpendicular direction (or at any angle including to the rear)? How would that not cause a difference in light's velocity that'd be irreconcilable? It's not possible for time's rate to express differently in different directions [3][A].
- If time's rate has to remain consistent in every direction and light disperses uniformly from any moving source, how can this not indicate that its velocity must always compound with its source's motion and the motion of other bodies/reference frames [4][A]?

- How can an object's one-dimensional contraction coupled to time's threedimensional slowing not create an irresolvable conflict that again clearly indicates light's compounding with all motion [5][A]?
- How can one-dimensional contraction coupled to three-dimensional time dilation not cause perpendicular light to exceed 186,000mi/s (that's believed to be the universe's maximum speed limit) by the amount of the object's motion [6][A]?
- How can relativity (including its general theory) be valid in our real threedimensional world, if it's impossible for light's velocity to remain fixed? Its underlying premise would become defunct [7][A].
- How can any of relativity's ancillary theories, like the Lorentz transformation (a system of equations Einstein adopted for relativity that translates the space and time coordinates from one reference frame to another) that are also dependent on light's constancy, not become nothing more than theoretical rhetoric as well? Without a fixed velocity for light, they'd also have no practical relevance to our actual physical environment [8][A][B].
- How can we accept the validity of the Lorentz transformation when it only works for linear motion, one-dimensionally, and only between two objects/ reference frames at a time [9][A][B]?
- How is it that time's rate would slow or dilate with motion to maintain light's constancy? Wouldn't its rate have to contract to coincide with light's corresponding decreasing velocity and an object's corresponding contraction in the direction of motion? Isn't a contracted rate of time actually a faster running time? For the same time period to be condensed into a shorter corresponding interval, wouldn't it have to proceed at a quicker pace? Wouldn't this have to be a faster rate of time [2][A][C]?
- How can Einstein's famous mass-energy relation, E=mc², have any validity when it's impossible for light's velocity to be fixed? Isn't it much more reasonable that particles are simply imparted with a charge from the electromagnetic field pushing them, or a charge from the field they're traversing, that increases their mass proportionally per the formula [10][A]?

- How could it ever be possible for any object's mass (the amount of material they contain) to metaphysically increase because of (subjectively decided) motion due to light's (incorrectly assumed) constancy [11][A]?
- How can Einstein be credited with discovering the mass-energy relation, E=mc², when several others expressed it in various forms decades before [10][A]?
- How can he be credited with originally conceiving the exact equation when he maintains that the proper expression is, $E_{kinetic} = mc^2 / \sqrt{1 v^2/c^2}$, where the energy, E, is limited to the kinetic energy of motion, not generically any type of energy, and it incorporates the Lorentz transformation because of his (incorrect and contradictory) belief in light's constancy [12][A][B]?
- How can mass and energy be interchangeable when the energy is kinetic or any type other than electromagnetic [10][A]?
- How can an accelerating object become infinitely large at the speed of light from its increasing mass while simultaneously becoming infinitely small from its contraction in the direction of motion, both due to light's (presumed) fixed velocity [2][10][A]?
- How can it be rationally concluded that all those airborne clock experiments, that are assumed to show time's relativistic slowing with motion due to light's fixed velocity, confirm relativity when it's much more reasonable they're actually recording a small decrease the atomic clocks' operating rate due to a slight increase in the mass of their cesium atoms due to a minor charge that's induced from their motion through the Earth's magnetic field that slows their natural frequency, which in turn slightly decreases the clocks' rate of operation, not time's rate [13][A]?
- How can it be concluded that those other experiments that are presumed to show time's relativistic increase with altitude (gravitational time dilation, time's slowing in gravity fields, also reasoned to be the end result of light's constancy) confirm relativity when it's much more sensible that they're actually recording a slight increase in the atomic clocks' operating rate, the product of their atoms' condensing with elevation in the ever-decreasing density of the Earth's magnetic field that increases their natural frequency, causing their clocks' rate of operation to run slightly faster, not time's rate [14][A]?

- How can it be concluded that readings from distant spacecraft that are assumed to confirm time's relativistic dilation when it's much more reasonable that they're actually only demonstrating a minor slowing in their clocks' rate of operation that's due to a slight increase in their atoms' size due to the ever-increasing density of the Earth and our solar system's gravity field along with a slight increase in their mass from the charge that's induced from their motion through them that's decreasing their natural frequency that in turn causes their clocks' rate of operation to run more slowly, not time's rate? Wouldn't this in combination with light's (radio signal's) increasing velocity in the ever-increasing density in those fields make it appear as if the spacecraft were slowing more than expected [15][A]?
- How can Einstein first premise relativity on light's constancy then a couple of years later in 1907 correctly but contradictorily conclude light's variability without renouncing relativity or least special relativity [1][16][A]?
- How can he reason that special relativity's effects are only valid outside of gravity fields or when they're "disregarded" because of light's variability in them? Aren't gravity fields everywhere? Don't they extend indefinitely? They surround and permeate every object. And every object, be it a particle or our entire (presumed) finite universe, has its own self-gravity. So where are the places, conditions, or circumstances where gravity fields don't exist where light's velocity can be fixed and relativistic effects can occur [17][A][C][D]?
- If there are no places in the entire universe where light's velocity can be fixed, which all of relativity is based on, where does that leave it [7][A][C][D]?
- How is it logical that the speed of light is variable in gravity fields of "curved" space that have a constant density when light's velocity can only vary in a medium that varies in density [16][A][C][D]?
- How can Einstein maintain that relativity would completely unravel if it were found that the speed of light was not constant in all cases when he insists that its velocity varies in gravity fields that he agrees extend indefinitely [18][A][C]?

- How can he decide that "time" is actually something real, established at the universe's inception, and that its rate of passage is governed by the universe's rate of expansion when in reality it's we ourselves who create time and establish its rate of passage through our selection of objects with periodic motion like the Earth's rotation and orbit or the natural frequency of cesium atoms of atomic clocks? It's not an independent property of the universe. So how could time's rate of passage ever change independent of the physical object that establishes it [19][A][C]?
- If time's rate of passage is governed by the universe's rate of expansion, how can it be reasoned that its rate can also change to maintain light's presumed constancy [2][19][A]?
- If time's rate of passage is set by the universe's rate of expansion, how can Einstein assert that its rate can change at the whim of an observer's subjective choices of motion [11][19][A]?
- If time's rate of passage is governed by the universe's rate of expansion and light's velocity is keyed to time's rate, how can light's constancy be concluded? Wouldn't a universe with an increasing rate of expansion alter time's rate and light's velocity correspondingly [11][19][A]?
- How can he argue that someone in motion who's experiencing a slower rate of time would not see everything outside of their reference frame contracting in size to maintain light's constancy or record a speed of light that exceeds 186,000mi/s [2][A]?
- How can he claim that someone in motion halfway between two simultaneous events would see the one in the direction of travel first when motion is supposed to cause time to run slower, not faster [20][A]?
- If time runs slower for someone experiencing (subjectively decided) motion, wouldn't the observer still see both events simultaneously? Wouldn't it just be at a later time than if stationary [2][11][20][A]?

- How can Einstein conclude that it's impossible for an occupant of a moving reference frame to detect their relativistic contraction when they could easily observe the angle of the hypotenuse between the vertical noncontracting leg and the horizontal contracting leg of a triangle set parallel to the direction of motion change with increasing velocity [21][A]?
- How can he conclude that the relative motion of any body is a subjective choice of each observer when any arbitrary choice, especially for celestial bodies, would violate the laws of gravitation and of course conflict with the choices of other observers [11][A][C]?
- How could an observer's subjective choice of motion not alter not only an object's velocity, length, and its rate of time but also its mass, along with any acceleration/braking or rotation-created gravity [11][A][C]?
- How can gravitational time dilation have any validity when it's derived from relativistic effects that Einstein contends can only occur outside of gravity fields where light's velocity is not variable but fixed [16][C]?
- How can "space" be a physical something that actually exists when by definition it's the nothingness between objects [22][C][D]?
- If space is nothingness and time is nonexistent as well and it's impossible for light's velocity to be fixed because of its factual variability and compounding with motion then what is it that's left of relativity that actually works [6][16][19][22][A][C][D]?
- How can a nonexistent space be melded to a nonexistent time into a fourdimensional "space-time" continuum when four dimensions represent an inconceivable reality [6][19][23][C][D]?
- How can an inconceivable nonexistent four-dimensional spacetime express two-dimensionally as a curving plane [24][C][D]?
- How can an inconceivable nonexistent four-dimensional spacetime express two-dimensionally as a curving plane when a plane by definition also has no physical existence? It can only define a location that's planar [25][C][D].

- How can an inconceivable nonexistent four-dimensional spacetime ever curve when curvature is a property limited to only one and two dimensions, a line and a plane, that again have no existence [26][C][D]?
- How can the volume or substance of any three-dimensional object curve when conceptually any fluctuation in its interior can only express as a variation in density [27][C][D]?
- How can an inconceivable nonexistent four-dimensional spacetime that somehow curves two-dimensionally as a nonexistent plane dent underneath three-dimensional massive bodies to induce their "attraction" when the denting would have to be the product of their weight caused by a much more massive body located underneath them with much stronger gravity the same way the Earth's gravity affects the model that's commonly used to portray gravity's effect: balls resting on a sheet of stretched fabric that tend to roll toward one another when released [22][28][D]?
- How can an inconceivable nonexistent four-dimensional spacetime that somehow curves two-dimensionally as a nonexistent plane that somehow dents underneath three-dimensional massive bodies to induce their "attraction" can compel them to roll downhill toward one another when they can't actually roll and aren't really uphill [22][28][D]?
- How can Einstein assert that spacetime's curvature causes the gravitation of massive bodies by compelling them to roll downhill toward one another, which is a mechanical reaction that is essentially instantaneous, when he also asserts that gravitation is propagated via waves at the speed of light by a force that expresses similar to electromagnetism [29][D]?
- How can it be reasoned that gravity is facilitated by unobservable massless graviton particles via waves when no physical mechanism exists that can pull or attract objects together whether it occurs at the speed of light or instantaneously [30][D]?

- How can it be reasoned that gravity is facilitated by unobservable massless graviton particles when they would conflict with relativity that has gravitation propagated by spacetime's curvature and (contradictorily) via waves by a separate force similar to electromagnetism [30][D]?
- How can graviton particles be anything other than theoretical when they have no mass, aren't observable, have no tangible way of attracting/pulling objects together, and somehow act at the speed of light via waves despite being physical objects that would become infinitely large (according to relativity) if they were [30][D]?
- How can Einstein argue that light curves because it follows space's geodesic when he also asserts that its position varies due to its varying velocity, which is essentially refraction [16][31][32][A][C][D]?
- How can normal Euclidean properties (a normal geometry of straight and parallel lines) only apply at smaller everyday scales while curving non-Euclidean properties govern at larger scales when his gravity would supposedly curve space to facilitate gravitation at all scales from the subatomic to our entire (presumed) finite universe [33][D]?
- How can a single object/reference frame express an infinite number of conflicting rates of time simultaneously throughout the entire object [11][A][C]?
- How can a single object/reference frame express an infinite number of conflicting rates of time simultaneously everywhere throughout the entire object that can then change when someone subjectively decides it's in motion [11][24][A][C]?
- How can space stretch when subject to gravity while the objects in it continually contract/condense, especially when Einstein contends that objects are spatially extended [28][34][C][D]?
- How can space stretch while its density remains constant [24][28][C][D]?
- How can space stretch in the direction of massive objects but contract in the perpendicular direction as indicated by the grid that's commonly used to portray the funnel-shaped space surrounding a black hole [35][36][D]?

- How can infalling objects stretch/spaghettify when real gravity causes their three-dimensional spheroidal condensing [35][36][D]?
- How can an object endlessly fall with acceleration toward the infinite condition of the funnel-shaped two-dimensional space of a singularity when in our real three-dimensional environment infalling objects quickly coalesce at their common center of mass [35][36][D]?
- How can black holes/wormholes remain anything other than theoretical when they're based on two-dimensional geometry that has no real existence [36][37][D]?
- How can Einstein first define two different types of mass, an "inertial mass" (mass in motion) and a "gravitational mass" (mass subject to gravity) when mass is only a measure of the amount of material an object contains, which has inertia when in motion and weight when at rest on a more massive body, and then claim that because they're the same, this makes them equal, which he codifies with a problematic "principle of equivalence" [38][39][C][D]?
- How can he then reason through the use of this principle that the "inertial mass" he associates with acceleration/braking and rotation are the same as the "gravitational mass" he associates with natural mass-created gravity to infer that acceleration/braking and rotation actually create real gravity fields that are the same as natural mass-created gravity fields [39][C][D]?
- How can he infer that acceleration/braking actually creates real gravity when its reaction is uniform, acts one-dimensionally, and doesn't coalesce while natural mass-created gravity's is nonuniform, acts three-dimensionally, and does coalesce [39][C][D]?
- How can he infer that acceleration/braking creates gravity when its reaction is mechanical, which is essentially instantaneous, while his gravity would also (contradictorily) act at the speed of light via waves [29][39][C][D]?
- How can he infer that acceleration/braking creates gravity when natural mass-created gravity doesn't require any motion [39][C][D]?
- How can acceleration/braking-created gravity be real when an object's motion and its rate can be subjectively decided by each observer [11][39][A][C]?

- How can any of the effects of special relativity (light's constancy, time's slowing, length contraction, and the increasing mass of accelerating objects) ever manifest for accelerating/braking objects when Einstein asserts that relativistic effects can only occur outside of gravity fields because of light's variability in them, which would have to include acceleration/braking-created gravity fields according to his own principle of equivalence [2][7][C][D]?
- How can he argue that a ray of light projected perpendicular from someone experiencing upward acceleration would curve downward, evidencing the existence of acceleration-created gravity, when each quantum of the projected light would not curve but actually travel a straight path perpendicular from its origin [40][C]?
- How can he infer that the centrifugal force of a rotating object is gravity when it acts outward two-dimensionally and natural mass-created gravity acts inward three-dimensionally [41][C][D]?
- How can he infer that the centrifugal force of a rotating object is gravity when it becomes stronger with distance while real mass-created gravity becomes weaker [41][C][D]?
- How can he infer that the centrifugal force of a rotating object is gravity when it disperses objects outward while real gravity coalesces objects inward [41][C][D]?
- How can he infer that the centrifugal force of a rotating object is gravity when its reaction is mechanical, essentially instantaneous, while (contradictorily) asserting that real gravity acts at the speed of light via waves [41][C][D]?
- How can he infer that the centrifugal force of a rotating object is gravity when it doesn't require mass but only an object's rotation while real gravity doesn't require rotation but only mass [41][C][D]?
- How can centrifugal-created gravity be real when the rate of an object's rotation that would determine centrifugal-created gravity's strength can be subjectively decided by each observer [11][41][C]?

- How can an object potentially have three coexisting but conflicting types of gravity fields, one originating innately from its mass, another from its acceleration/braking, and a third from its rotation [39][41][C][D]?
- How can any of the effects of special relativity ever manifest for any rotating body when he argues that they can only occur outside of gravity fields where light's velocity is not variable but fixed, which would have to include any centrifugalcreated gravity field according to his principle of equivalence [17][41][A][C]?
- How can Einstein conclude that the perimeter of a rotating disk contracts while its radius remains constant when it's conceptually/physically impossible [13][42][E]?
- How can he reason that the surface of a rotating sphere contracts while its radius remains constant when it's conceptually/physically impossible [42][E]?
- How can time's rate vary from the center to the edge of a rotating disk or from the poles to the equator of a rotating sphere due to the varying rate of their rotation from the center out when they're of a single reference frame that can have only one rate of time [3][42][E]?
- How can Einstein consecutively define three principles of relativity (the special, the general, and the exact general) that he contends are all concurrently correct and functionally in force when each supersedes and invalidates the previous? Isn't a principle by definition a fundamental truth that's unchanging [43][F]?
- How can he assert that redshift (that he contends is established by an atom's reduced frequency due to time's slowing because of its rapid rotating motion around a massive body) indicates gravitational potential when time's decreasing rate would vary everywhere over the entire body from zero at its poles to its slowest rate at its equator [41][42][44][45][C]?
- How can he argue that redshift (that he believes is established by an atom's reduced frequency due to time's slowing because of its rapid rotating motion around a massive body) indicate gravitational potential when he asserts that relativistic phenomena, i.e., time's slowing, can only occur outside of gravity fields where light's velocity is not variable but fixed [7][42][45][C]?

- How can he reason that a rotating massive body's gravitational potential established by centrifugal-created gravity translates into the gravitational potential of its real gravity established by its mass [41][45][C][D]?
- If gravitational potential is established by rotation, how can a nonrotating massive body ever exhibit a redshift [42][45][C]?
- If gravitational potential were really established by rotation, wouldn't a rotating massive body then have to have two redshifts, one from its rotation and the other from its mass equivalent [42][44][45][C]?
- How can the big bang's cosmological redshift originate from recessional velocity/universal stretching if, as Einstein asserts, redshift is actually the product of a massive body's gravitational potential [42][45][46][C][G]?
- How can space/light's stretching from the big bang's expansion be responsible for cosmological redshift when no redshift occurs from space/light's stretching around massive bodies that aren't receding [46][C][G]?
- How can the rate of universal expansion, or whether it has any expansion at all, be determined by cosmological redshift when a galaxy's redshift from gravitational potential (or any other redshift source) and its redshift from recessional velocity/universal stretching inherently conflict [42][45][46][C][G]?
- How can the big bang be valid if the redshifted light from galaxies originates from gravitational potential (or any other redshift source), not recessional velocity/universal stretching [42][45][46][C][G]?
- If cosmological redshift is the product of space/light's stretching due to universal expansion, how can cosmological blueshift be the product of universal contraction [46][C][D]?
- How can relativity have any validity in a big bang universe (that's based on cosmological redshift) when Einstein insists that if it's found that galactic redshifts don't indicate gravitational potential then relativity would be untenable [47][C][G]?
- How can he realistically propose a finite universe while affirming that the universe is actually infinite [48][49][G]?

- How can he reasonably theorize a "finite and yet unbounded" universe when finite and unbounded are inherently conflicting qualities as he even contends [49][G][H]?
- How can he conceive a universe that expresses two-dimensionally, like a sphere's surface, when existence in two dimensions isn't conceptually possible [49][G][H]?
- How can Einstein rationally assert that in his universe someone could, "draw lines or stretch strings in all directions [meaning radially in three dimensions] from a single point... At first, the straight lines which radiate from the starting point diverge farther and farther from one another, but later they approach each other, and finally they run together again at a 'counter-point' to the starting point." when it's obviously a conceptual impossibility [50][G][H]?
- How can he lecture us that visualizing the two-dimensionality of his spherical universe's, "space means nothing else than that we imagine an epitome of our 'space' experience, *i.e.* of experience that we can have in the movement of 'rigid' bodies," when his admonishment is meaningless [51][G][H]?
- How can he reason that a two-dimensional universe, whose whole existence is limited to the surface of a sphere, can have a radius [49][G][H]?
- How can we actually believe that someone in his two-dimensional universe could look out with a powerful enough telescope in any direction (three-dimensionally) and see the backside of our own galaxy [49][G][H]?
- How can universal expansion be accepted as a substitute for his cosmological term (his mathematical constant that prevents his two-dimensional universe from collapsing in on itself from gravity) to validate our big bang beliefs when a finite yet unbounded curving non-Euclidean universe that impossibly expresses two-dimensionally like the surface of a sphere is conceptually and physically impossible [53][G][H]?
- How can a finite but three-dimensional big bang universe remain uniform, homogeneous/isotropic as we observe, when it's conceptually and physically impossible for any quantized volume of a sphere to express uniformly [49][G][H]?

- How could a finite three-dimensional big bang ever remain uniform when its expansion and self-gravity would cause it to dissipate or condense exponentially per the inverse square law because of the inherent geometry of a sphere, which would be easily discernible through the dispersion of its galaxies and their redshifts, if it were actually finite and expanding [49][G][H]?
- How can anyone seriously propose that the big bang is not finite but now argue as a hurried workaround that it's really infinite to explain away the fact of three-dimensional exponential diffusion/condensing when size and density have no meaning in an infinite reality, which is the impetus for and determines all of the big bang's presumed primeval conditions, i.e., smaller than an atom at its inception or even have an inception, be dense enough to create its extremely hot beginning, be so condensed that matter was unable to form in its earliest environment, be concentrated enough to generate the force necessary for its initial big bang and ongoing expansion, and so on [54][G][H]?

Rationally reconciling many of these crucial and elemental questions will be next to impossible, which directly threatens relativity's fundamental viability.

Conclusion

With relativity's tenability hanging in the balance, it may not be unreasonable to consider the real possibility that it's not the pinnacle of scientific reason that we've all come to believe. That maybe its tenets are not all that practical, but are more abstract and idealistic. That maybe in our real nontheoretical world, it essentially has no useful relevance.

Maybe it is time to be more realistic and employ a greater degree of pragmatism. Maybe we should step back and take a moment to rationally explore the possibility of an alternative, a contingency, and consider what a nontheoretical, relativity-free universe might look like. No harm in taking a look. It's not like it's real. It's just theory and it's self-imposed.

A universe liberated from relativity wouldn't be artificially restricted by light's impossible constancy. Without the increasing mass of accelerating objects that somehow become infinitely large at the speed of light while simultaneously becoming infinitely small in the direction of motion, they could travel at any velocity up to instantaneous.

Nor would it be comprised of a nonexistent space that's somehow melded to a nonexistent time into an inconceivable four-dimensional spacetime that impossibly curves two-dimensionally as it dents underneath three-dimensional bodies to somehow mechanically facilitate their gravitation, that's also somehow contradictorily facilitated by massless graviton particles that somehow act at the speed of light via waves.

The universe would also not be finite. Nor would it be expanding. Nor would it impossibly express two-dimensionally like the surface of a sphere. It'd be a three-dimensional, infinitely vast and eternal field of radiant electromagnetic energy that would remain in a calm, transcendent, steady-state condition while dynamically distilling/reprocessing all of its material through each galaxy, the natural result of gravity's inherent runaway nature.

The universal field would naturally decrease in density immediately around burgeoning particles, and the bodies they compose, because they're one and the same and fields are intrinsically uninterruptible. This innate exponential decrease in its ambient density would define every body's gravity field. It'd be their natural reactive search for equilibrium in the ever-decreasing density of those ever-merging gravity fields that caused their runaway gravitation.

This would lead to the ceaseless, ever-increasing coalescing and condensing of each galaxy's infalling material. As the pressure builds, it'd ultimately be collapsed back into the radiant electromagnetic energy it originated from. It'd then be radiated back out or spewed out in the huge jets of mature spirals in a continuous never-ending process of perpetual recycling.

Runaway gravitation's continuous infall of material at each galaxy would produce a Doppler effect from its recessional velocity that'd have an associated redshift. Cosmological redshift would not originate from nonexistent space's, or light's, inferred stretching from the impossible expansion of an impossibly uniform impossibly finite universe.

With coalescing/condensing being the result of the intrinsic decrease in the density of the universal field around each body, their gravity field, gravity would naturally be unified with electromagnetism. The same would be true for the other two assumed forces of nature, the strong and weak nuclear forces. All would be unified naturally into the one electromagnetic force.

Unlike relativity's purely theoretical and ultimately insurmountable ideation, this would be a simple, practical, understandable universe. It'd be unimpeded by contradiction, discrepancies, and delusion while offering unlimited possibilities.

But breaking free from relativity's pervasive groupthink (mostly the product of its illicit ploy: only the wise and intelligent are capable of comprehending it) will be no small task. It may very well take generations of aggressive truth-seeking by independent researchers before elitist academia is able to come to grips with its factual untenability in our real nontheoretical world of three actual dimensions.

Declarations

The author certifies that he did not receive any funding, grants, or any type of support from any individual, institutions, or organization in the connection with the study or preparation of this work. The author further certifies that he does not have any financial or competing interests in connection with this work or ties of any kind to any individual or organization that might.

References

- [1] Albert Einstein, *Relativity: The Special and the General Theory,* 15th ed. Translated by Robert W. Lawson (New York: Three Rivers Press, 1961), 21-23, 58-60, 167-168.
- [2] Einstein, *Relativity*, 32-46.
- [3] Einstein, Relativity, 31.
- [4] Einstein, Relativity, 31, 58-60, 167-168.
- [5] Einstein, Relativity, 31, 32-46.
- [6] Einstein, Relativity, 31, 32-46, 49-54.
- [7] Einstein, Relativity, 85.
- [8] Einstein, *Relativity*, 34-39; "Lorentz transformation," Wikipedia: The Free Encyclopedia, last modified Dec 2, 2023, https://en.wikipedia.org/wiki/Lorentz_transformation.
- [9] Einstein, Relativity, 44.
- [10] Einstein, Relativity, 49-54.
- [11] Einstein, Relativity, 16-18, 30, 67, 68...
- [12] Einstein, Relativity, 34-39, 49-54.
- [13] "Hafele–Keating experiment," Wikipedia, last modified Aug 24, 2022, https://en.wikipedia.org/ wiki/Hafele-Keating_experiment; A. G. Kelly, "Hafele & Keating Test; Did They Prove Anything?" Cartesio Episteme, www.cartesio-episteme.net/H%26KPaper.htm.
- [14] "Gravitational Time Dilation," Hyperphysics, last access Dec 28, 2022, http://hyperphysics. phy-astr.gsu.edu/hbase/Relativ/gratim.html.
- [15] "Pioneer anomaly," Wikipedia, last modified Jul 10, 2024, https://en.wikipedia.org/wiki/ Poineer_anomaly#:
- [16] Einstein, Relativity, 85, 104, 109, 171; In his article, "The speed of light is not constant," on his website, The Physics Detective (https://physicsdetective.com/the-speed-of-light/) John Duffield has assembled eight more Einstein quotes from eight papers beginning from 1907 through 1920 from THE COLLECTED PAPERS OF ALBERT EINSTEIN from the Princeton University Press that affirm Einstein's evolved belief in and contradictory assertion of light's variability.

- [17] Einstein, *Relativity*, 85, 109.
- [18] Einstein, Relativity, 71-74.
- [19] Einstein, *Relativity*, 10-11, 153; "Time," Merriam-Webster, last modified Jul 8, 2024, https://www.merriam-webster.com/dictionary/time.
- [20] Einstein, Relativity, 29-31.
- [21] Einstein, Relativity, 30-33, 58-60, 69-70.
- [22] Einstein, *Relativity*, 71-73, 92-107, 112-116; "Space," Merriam-Webster, last modified Mar 26, 2023, https://www.merriam-webster.com/dictionary/space.
- [23] Einstein, *Relativity*, 61-64, 104-107, 170-176.
- [24] Einstein, Relativity, 92-107.
- [25] "Plane (mathematics)," Wikipedia, last modified May 25, 2023, https://en.wikipedia.org/wiki/ Plane_(mathematics).
- [26] "Curvature," Merriam-Webster Dictionary, last modified Jul 7, 2024, https://www.merriamwebster.com/dictionary/curvature.
- [27] "Density," Merriam-Webster, last modified Jul 12, 2024, https://www.merriam-webster.com/ dictionary/density.
- [28] "Gravity," Wikipedia, last modified Jan 1, 2023, https:// en.wikipedia.org/wiki/Gravity.
- [29] Einstein, Relativity, 72.
- [30] "Graviton," Wikipedia, last modified Nov 29, 2022, https://en.wikipedia.org/wiki/Graviton.
- [31] Einstein, Relativity, 83-85.
- [32] "Refraction," Wikipedia, last modified Feb 5, 2023, https://en.wikipedia.org/wiki/Refraction.
- [33] Einstein, Relativity, 99.
- [34] Einstein, Relativity, vii.
- [35] "Spaghettification," Wikipedia, last modified Jun 21, 2024, https://en.wikipedia.org/wiki/ Spaghettification.
- [36] "The Beginning to the End of the Universe: Exploring the shape of space-time," Astronomy, last updated May 18, 2023, https://astronomy.com/space/the-beginning-to-the-end-of-theuniverse-exploring-the-shape-of-space-time.
- [37] "Wormhole," Wikipedia, last modified Jun 21, 2024, https://en.wikipedia.org/wiki/Wormhole.
- [38] "Mass," Merriam-Webster, last modified Aug 30, 2023, https://www.merriam-webster.com/ dictionary/mass.

- [39] Einstein, Relativity, 75-79, 172, 175.
- [40] Einstein, Relativity, 75-79, 83-85.
- [41] Einstein, Relativity, 88-89.
- [42] Einstein, Relativity, 90-91.
- [43] Einstein, Relativity, 15-16, 67-69, 108.
- [44] "Gravitational Redshift," Wikipedia, last modified Dec 19, 2022, https://en.wikipedia.org/wiki/ Gravitational_redshift.
- [45] Einstein, Relativity, 147-150.
- [46] "What is cosmological redshift," How Stuff Works, last access Dec 27, 2022, https://science. howstuffworks.com/cosmological-redshift.htm.
- [47] Einstein, Relativity, 151.
- [48] Einstein, Relativity, 129, 158.
- [49] Einstein, Relativity, 122-127.
- [50] Einstein, Relativity, 126.
- [51] Einstein, Relativity, 125.
- [53] Einstein, Relativity, 153.
- [54] "Big Bang and the Expansion of the Universe," Durham University, Institute for Computational Cosmology, last access Jul 14, 2024, https://www.icc.dur.ac.uk/~tt/Lectures/Galaxies/Local Group/Back/bigbang.html#:

Ancillary References

- [A] Ken Gonder, "Light's Presumed Constancy," viXra open-access archive, Jun 22, 2023, http://vixra.org/abs/2208.0159.
- [B] Gonder, "Resolving Relativity's Unresolvable Paradoxes," viXra open-access archive, Feb 9, 2024, http://vixra.org/abs/2402.0042.
- [C] Gonder, "Equivalency's Fallacy," viXra open-access archive, Sept 5, 2023, https://vixra.org/ abs/2305.0102.
- [D] Gonder, "Gravity's Origin, Impetus & Unification," viXra open-access archive, Sept 5, 2023, https://vixra.org/abs/2305.0094.
- [E] Gonder, *The Reality of Relativity*. Last revision 2024, 7.4 240606 (Amazon: Independently published, 2018), https://www.amazon.com/dp/B07CVMDV66, Chapter: Rotating Bodies, 119-130.

- [F] Gonder, The Reality of Relativity. Last revision 2024, 7.4 240606 (Amazon: Independently published, 2018), https://www.amazon.com/dp/B07CVMDV66, Chapter: Principles of Relativity, 151-155.
- [G] Gonder, "Cosmology in Crisis?" viXra open-access archive, July 10, 2023, https://vixra.org/ abs/2206.0160.
- [H] Gonder, "Uniformity in a Finite Universe," viXra open-access archive, July 10, 2023, https:// vixia.org/abs/2207.0120.

Bibliography

Arp, Halton. Seeing Red: Redshifts, Cosmology & Academic Science. Montreal: Aperiron, 1998.

- Einstein, Albert. *The Meaning of Relativity*. 5th ed. Translated by Edwin Plimpton Adams, Ernst G. Straus, Sonja Bargmann. Princeton: Princeton University Press, 1953.
- Einstein, Albert. *Relativity: The Special and the General Theory*. 15th ed. Translated by Robert W. Lawson. NY: Three Rivers Press, 1961.
- Encyclopedia Britannica, last access 2024, https://www.britannica.com.
- Gonder, Ken. *The Reality of Relativity*. 7.4 240606, Last revision 2024. Amazon, Independently published, 2018, https://www.amazon.com/dp/B07CVMDV66, (LCCN: 2020901711).

Hyperphysics, last access 2024, http://hyperphysics.phy-astr.gsu.edu.

Merriam-Webster Dictionary, last access 2024, https://www.merriam-webster.com.

NASA, last access 2024, https://www.nasa.gov.

Science News, 1999 - 2018, https://www.sciencenews.org.

Scientific American, 1994 - 2024, https://www.scientificamerican.com.

Sky & Telescope, 2000 - 2024, https://skyandtelescope.org.

Wikipedia: The Free Encyclopedia, last access 2024, https://www.wikipedia.org.