

Triunism
D.J. Larson
July 30, 2026

Abstract.

Western civilization rests on foundational belief systems of religion, philosophy, and science that once pursued a unified truth. Over recent centuries, science rose to dominate over philosophy and religion as new observations challenged old paradigms and technological advances delivered many benefits. Commitments to objective reality, God, and the immortal human soul gradually yielded to a worldview in which scientific formulas and empirical tests became the dominant path to knowledge. Truth came to be seen as a human construct shaped by power. In many intellectual circles, Christianity is now viewed as an outdated and sometimes dangerous myth.

This paper traces the historical path that led to the present dominance of nihilistic, monistic, materialistic, atheistic, relativist instrumentalism, including the role science has played in appearing to support these philosophical positions. It then discusses the many unsolved problems in presently dominant science and philosophy.

Triunism is presented as a return to objective reality, Christianity, and a single coherent truth. Its ontology consists of a primary triune of absolute space, absolute time, and matter. Within matter lies a secondary triune: M1 (ordinary matter), M2 (aetherial matter), and M3 (spiritual matter). The human being is understood as an M3 immortal soul united to an M1 body during earthly life, with the soul surviving bodily death. M3 interacts with M1 through preferential collapse of quantum states, enabling genuine free will while preserving M1 conservation laws.

The paper discusses how a return to absolute theory and an aetherial M2 is consistent with existing scientific data. It notes that science deliberately excludes M3 from its experiments; physics therefore finds no evidence of M3. This absence leads to the mistaken materialist conclusion that M3 (including God and the soul) does not exist. The paper presents ample positive evidence that M3 does exist, including evidence for the soul. The life, death, and Resurrection of Jesus Christ, along with arguments concerning the existence of God, are also discussed. Finally, the paper discusses how Triunism offers promising solutions to many persistent problems in physics and philosophy.

Triunism is not a finished product. The present paradigm has been constructed over centuries by a vast collective effort and matches a tremendous body of observational detail. What is offered here is a foundation, not an encyclopedic replacement. Much work remains.

By recovering metaphysics, objective reality, and a spiritual M3, Triunism addresses many vexing problems while providing a path toward reuniting physics, philosophy, and Christianity under the pursuit of a single coherent truth.

1. Introduction.

The contemporary Western intellectual class is dominated by an atheistic worldview grounded in monist materialism and determinism. Earlier, more traditional beliefs in a single objective reality, metaphysics, the absolute, and faith in Christianity have been largely abandoned. This paradigmatic shift is widely celebrated as a great advance — an “Enlightenment” that supposedly liberated humanity from the “Dark Ages.” Underpinning this philosophical transformation is its alliance with modern physics, where many contemporary physicists dismiss philosophical concerns as mere “woo.” Yet the rejection of philosophy in physics is itself a philosophical stance: modern physics has largely and uncritically embraced instrumentalism.

Modern physics has also largely abandoned the classical notion of basic entities as things-in-themselves, preferring instead to treat particles as mere excitations or instantiations of underlying quantum fields. In parallel, the intellectual class has largely abandoned belief in an immortal human soul, consistent with its embrace of monist materialism. Consciousness is acknowledged, but it is regarded as nothing more than an emergent byproduct of physical processes in the brain. This reduces human beings to “meat computers” — sophisticated but ultimately soulless machines. God in general, and Christianity in particular, are frequently ridiculed, with their central truth claims simply dismissed. This is the “death of God” proclaimed by Nietzsche[1], and it has indeed produced the nihilism he warned against. What was once called Christendom is now termed “Western Civilization,” and from a Christian perspective it is in evident moral and societal decline.

The Christian may reasonably ask two questions: How did we arrive at today’s dominant philosophy of nihilistic, monistic, materialistic, atheistic, relativist instrumentalism? And how do we clean up the mess? Section 2 addresses the first question; the remaining sections address the second.

Triunism is a philosophy that returns to traditional beliefs. Clearly, updates were needed to 16th century science, philosophy and religion as contradictory empirical evidence demanded. However, Triunism argues that we should update rather than discard our earlier thinking. Triunism embraces a return to the physics of an absolute theory and the aether, along with a metaphysical and objective understanding of elemental entities as real things-in-themselves. Triunism also embraces consciousness as part of an immortal human soul and seeks to be a complete philosophy within the limits of human understanding, including a reconciliation of faith and reason.

2. How did we get to the present paradigm? A historical review.

The path to the present paradigm has been broad, involving a great many thinkers and movements. This section focuses only on the main developments that first produced the Thomistic synthesis and then led, step by step, away from its strong realism and theism toward today’s dominant philosophy of nihilistic, monistic, materialistic, atheistic, relativist instrumentalism.

The foundations of Christendom’s philosophy drew heavily from the ancient Greeks — especially Socrates, Plato, and Aristotle — along with Ptolemy’s astronomical system. The teachings of Jesus Christ stood at the center, and early Christian thinkers such as Augustine[2] worked to integrate Platonic philosophy with revealed truth. Later, Islamic scholars played a crucial role by preserving and transmitting the works of the ancient Greeks. The alchemist Jabir ibn Hayyan (Geber) [3] extended the classical five elements (earth, air, fire, water, and aether) by introducing mercury and sulfur as additional principles, bringing the total to seven.

This inherited framework endured for over a millennium. Its intellectual high point came in the 13th century with the Thomistic synthesis of Thomas Aquinas[4]. Aquinas achieved a remarkable integration of Aristotelian philosophy, the five elements, Aristotle's four causes (material, formal, efficient, and final) as a complete explanation of entities, and the Ptolemaic celestial model (with a deferent and epicycles), all integrated with Christian revelation. Faith and reason were understood as harmonious paths to the same *Logos* (Christ). The resulting cosmos was purposeful, hierarchical, and sacramental — an objective order sustained by God, in which human souls possessed genuine agency and an immortal destiny.

Beginning in the late Middle Ages, the Thomistic synthesis came under pressure. Nominalism, particularly through William of Ockham[5], weakened confidence in universals (shared real natures) and inherent purposes (the formal and final causes), elevating God's arbitrary will over rational order. The Reformation of the 16th century further fractured institutional and intellectual unity. It began in 1517 when Martin Luther[6] posted his Ninety-Five Theses, challenging indulgences and papal authority. John Calvin[7] soon emerged as a major systematizer of Reformed theology in the 1530s and 1540s. While the Reformation produced important correctives and renewed personal faith, the principle of *sola scriptura* and the emphasis on individual interpretation unintentionally accelerated pluralism and private judgment, setting the stage for later skepticism. During this same era, Nicolaus Copernicus[8] developed his heliocentric model, with his major work published in 1543.

The 17th century brought the first serious cracks in the Thomistic synthesis with the onset of modernism, which emphasized reason, science, and skepticism toward traditional authority. Baruch Spinoza[9] challenged the idea of a personal God, proposing instead a pantheistic vision in which God is essentially identical with Nature itself. Johannes Kepler[10] and Galileo Galilei[11] gave Copernican heliocentrism new mathematical rigor and empirical support, significantly elevating its prominence. René Descartes[12] developed a mechanistic philosophy that divided reality into two distinct substances: extended matter (*res extensa*) and thinking mind (*res cogitans*).

But above all, it was Isaac Newton[13], whose work in the late 17th and early 18th centuries most decisively displaced the Aristotelian paradigm. Through his three laws of motion and his theory of universal gravitation, Newton offered a comprehensive mathematical framework that explained both terrestrial and celestial mechanics with remarkable precision. The developments of the 17th and 18th centuries were methodologically brilliant: by concentrating on quantifiable efficient causes and deliberately setting aside the formal and final causes for the sake of practical prediction, physics achieved unprecedented explanatory and technological power.

By the early 18th century, the Aristotelian portion of the old synthesis had largely been set aside. However, the Christian framework remained mostly intact. Spinoza's pantheism gained little traction, while Galileo, Descartes, and especially Newton retained a deep Christian faith that included belief in an immortal human soul. Metaphysics and objective reality were still firmly in place within the Newtonian system: his laws described real physical objects acting under real physical forces. Although Newton made major mathematical advances, including the development of calculus, his physics remained grounded in a realist physical theory. At this point, philosophy, science, and religion continued to form an integrated whole.

It was in the later 18th century that Christianity, metaphysics, and objective reality came under sustained threat among the intelligentsia. Enlightenment thinkers, particularly in France, turned

reason against traditional authority, revelation, and “superstition.” Figures such as Voltaire[14], Diderot[15], and Hume[16] championed empiricism and its skepticism toward both Christianity and metaphysics. George Berkeley’s idealism[17] (*esse est percipi* — “to be is to be perceived”) and Immanuel Kant’s transcendental idealism (his “Copernican revolution”[18]) in philosophy — which located space, time, and causality in the structuring activity of the mind rather than in things-in-themselves — further distanced thought from robust realism. Philosophy increasingly operated under an “anything goes” attitude: bold, speculative systems gained traction if they were intellectually clever, regardless of their grounding in objective reality or Christian tradition.

The 19th century intensified the break from Christianity, metaphysics, and objective reality, while also splintering philosophy, science, and religion into increasingly separate domains. Charles Darwin’s[19] theory of evolution by natural selection removed apparent design and teleology from biology. Friedrich Nietzsche[1] dramatically announced the “death of God,” diagnosed Christian morality as “slave morality” rooted in resentment, and warned that the resulting nihilism would prove devastating unless new values were forged through the will to power. In the same period, positivism gained influence as a philosophical stance that restricted genuine knowledge to what could be observed and scientifically verified, treating metaphysics and theology as outdated. This further accelerated the separation of science from both traditional philosophy and Christianity.

Meanwhile, significant advances continued in mathematics and the hard sciences. Joseph-Louis Lagrange[20] reformulated Newtonian mechanics into a more abstract and powerful mathematical framework that now bears his name (Lagrangian mechanics). This represented an important step toward detaching physics from its intuitive physical roots and grounding it more deeply in pure mathematics. Dmitri Mendeleev[21] organized the rapidly expanding list of known chemical elements into the periodic table, significantly expanding the seven-element framework developed by medieval alchemists into the modern system of 92 naturally occurring elements. James Clerk Maxwell[22] developed his famous set of equations that unified electricity, magnetism, and light into a single elegant electromagnetic theory.

Yet despite the scientific and mathematical advances of the 18th and 19th centuries, Christianity still held strong among the vast majority of the European, American, and Australian public — and among many of the pioneers of the new science and mathematics. While Voltaire, Diderot, Hume, Darwin, and Nietzsche openly questioned or opposed Christianity, several leading thinkers retained Christian belief. George Berkeley was a devout Anglican bishop and Christian apologist. Immanuel Kant, though theologically unorthodox, was raised in Pietism and continued to affirm a moral theism. Joseph-Louis Lagrange attended Roman Catholic mass regularly. Dmitri Mendeleev was raised Russian Orthodox and retained a form of deistic belief. James Clerk Maxwell was a committed evangelical Christian who served as an elder in the Church of Scotland.

The 20th century consolidated and accelerated the trend away from Christianity, metaphysics, and objective reality, while further splintering philosophy, science, and religion into largely autonomous domains. In philosophy, existentialism urged individuals to create their own subjective meaning in an inherently absurd universe. Building upon Nietzsche, modernism gave way to a new era of postmodernism, represented by thinkers such as Michel Foucault[23], Jacques Derrida[24], and Jean-François Lyotard[25]. Postmodernism deconstructed grand narratives, objective truth claims, and the Western/Christian heritage as disguised power structures. These philosophical developments increasingly isolated philosophy from both religion and science.

In physics, revolutionary changes unfolded rapidly in the late 19th and 20th centuries. At the end of the 19th century, the concept of a luminiferous ether — a pervasive substance filling all space that supported light waves — was a central feature of physical theory. (The idea of an aether had existed since antiquity in Greek, Indian, and Chinese thought; it was updated in the post-Newtonian era to serve as the medium for electromagnetic waves.) The 1887 Michelson-Morley experiment[26] failed to detect any motion of the Earth through this ether. Hendrik Lorentz[27], with contributions from George FitzGerald[28] and Joseph Larmor[29], developed the Lorentz Ether Theory, which explained the null result by proposing that measuring rods contract and clocks slow as they move through the ether. However, Albert Einstein’s 1905 special theory of relativity [30] eliminated the need for the ether altogether by unifying space and time into a single four-dimensional continuum. While the special theory initially failed to gain widespread traction against the Lorentz Ether Theory, Einstein’s 1915 general theory of relativity [31], which added curvature to the spacetime continuum, found great success. The general theory helped explain the long-standing anomalous advance of Mercury’s perihelion and also predicted the gravitational bending of light, which was dramatically verified by Arthur Eddington’s 1919 expedition [32].

Quantum theory delivered an even more profound shift. Max Planck[33] initiated the quantum revolution in 1900, and the new phenomena were formalized in the early 1920s by Erwin Schrödinger’s wave mechanics[34] and Werner Heisenberg’s matrix mechanics[35]. Paul Dirac[36] unified quantum mechanics with special relativity in his famous Dirac equation (1928), which employed matrices and four-component spinors. While Einstein’s relativity remained grounded in a realist physical picture, quantum mechanics increasingly lacked a clear mapping to any underlying physical entities. Dirac’s spinors and matrices, in particular, had no straightforward physical interpretation as real rotating objects or densities. Physics was moving decisively away from concrete physical models toward abstract mathematical formalisms.

A crucial step in this mathematization of physics came from Emmy Noether’s theorem[37] (1918). It showed that certain symmetries in the mathematical equations used to describe a system correspond to conserved quantities — properties that remain unchanged during physical processes. For example, electric charge conservation had long been known, and in the mid-20th century, particle accelerators revealed many new particles and several additional conserved quantities.

Following Noether’s insight, physicists added new mathematical terms to an ever-larger equation called the Lagrangian. These terms incorporated abstract “symmetry groups” — sophisticated mathematical structures that use matrices to represent the “intrinsic” properties of particles. (Electric charge is one such intrinsic property and corresponds to one of the symmetry groups.) Over time, this process produced the Standard Model of particle physics, built around quarks and leptons, four fundamental forces (strong, weak, electromagnetic, and gravitational), and heavy use of group theory and matrix mathematics.

Quantum field theory[38, 39] took the abstraction even further. It treats particles not as real, concrete things-in-themselves, but merely as excitations of underlying relativistic fields. The fields and symmetries exist primarily as elements of the mathematical formalism rather than as objectively real physical entities in the classical sense. The theory works extremely well for predictions, but it is fundamentally mathematical rather than physical.

Critical to the validation of the new physics paradigm was the development and successful testing of Quantum Electrodynamics (QED) [40, 41, 42, 43] in the mid-to-late 20th century. QED makes extraordinarily accurate predictions, in some cases agreeing with experiment to roughly one part

in 10^{12} (and claimed in certain contexts to reach even higher precision). It is frequently advertised as the most accurate theory ever developed by man.

Of the many 20th century scientific advances, it was the cultural prestige of Einstein's relativity theories that significantly influenced the philosophical shift of the period. Presented as a definitive overthrow of absolute space and time, relativity supplied a powerful scientific image that many took as validation for wider forms of relativism — the view that truth, knowledge, and reality itself are relative to perspective, culture, or historical situation. In this way, a successful physical theory was recruited to underwrite the abandonment of objective, absolute frameworks in philosophy and the further sidelining of traditional Christian claims.

The 20th century also saw many leading scientists distance themselves from Christianity and organized religion in general, with a clear shift toward secular, agnostic, or atheistic worldviews. Albert Einstein embraced a Spinozistic conception of God as identical with Nature, rejecting the personal God of Judaism, Christianity, and Islam. Erwin Schrödinger was drawn to Hindu and Vedantic ideas. Paul Dirac was an outspoken atheist. The further development of the Standard Model and much of theoretical particle physics was carried out predominantly by secular, agnostic, and atheistic thinkers, with only a small minority holding traditional Christian, Islamic, or religious Jewish convictions.

In the late 20th and early 21st centuries, physics has increasingly turned toward ambitious but often untestable or only marginally testable ideas — string theory with its extra dimensions[44], the many-worlds interpretation of quantum mechanics[45], and various multiverse hypotheses[46]. These exemplify the continuation of speculative freedom largely untethered from realism or direct empirical constraint. Philosophy has followed a similar path, with continued emphasis on deconstruction[23, 24], social constructivism[47], and various forms of anti-realism[25, 48]. Together, the dominant intellectual class in both fields has largely embraced monist materialism, determinism (or chance without higher agency), and the rejection of traditional objective metaphysics. Consciousness is reduced to brain processes, the soul is dismissed as illusory, and Christianity is relegated to the realm of delusion or cultural artifact. What was once Christendom has become a secular “Western Civilization” that is, from a Christian perspective, increasingly marked by moral and societal fragmentation.

Meanwhile, the three great disciplines — science, philosophy, and religion — have become largely siloed from one another. Within science, a strong form of scientism has taken hold: the conviction that the methods of the natural sciences are the only (or at least the best) route to genuine knowledge, rendering other forms of inquiry (philosophy, theology, and the humanities) inferior or irrelevant when they venture beyond what can be empirically verified. In philosophy, once physics embraced instrumentalism and religion was dismissed as outdated myth, there remained virtually no external constraints — resulting in almost complete freedom of speculative thought. Religion, for its part, has largely retreated from the public square, and many of its historic intellectual pillars have been steadily eroded by the dominant paradigms of modern science and philosophy.

3. Problems With the Present Paradigm.

From a Christian perspective, the combination of scientism and instrumentalism represents a subtle but profound form of nihilism — the very nightmare Nietzsche foresaw. We have lost confidence in objective truth itself, even questioning whether truth exists. We revel in our growing technological control over nature and the material wealth it produces, yet we have largely lost sight

of any deeper meaning or purpose to human life. Modernity urges us to pursue wealth, power, and pleasure during our brief earthly existence, but doing so may come at the cost of losing our eternal souls.

Beyond the problem of nihilism, the siloing of physics, philosophy, and religion has proven deleterious to each discipline. When these domains become isolated from one another, they lose the natural guardrails once provided by their mutual interaction. Physics drifts toward ungrounded mathematical instrumentalism, philosophy toward politically motivated make-believe, and religion toward cultural irrelevance — each one poorer for the absence of the others.

Despite modernism's premise that reason would prevail, philosophy has been beset by numerous problems for centuries. Central among these is the Interaction Problem: How can an immaterial (or distinct) mind causally influence or be influenced by a material body, given their radically different natures? Descartes' pre-modern pineal gland proposal failed to resolve this, and the interaction problem also raises issues with physics (e.g., conservation laws or causal closure of the physical world). Beyond the Interaction Problem, a significant list of long-running philosophical problems remains. In the philosophy of mind, these include: the Hard Problem of Consciousness; the Problem of Other Minds (and solipsism); the Mental Causation / Causal Exclusion Problem; the Unity of Consciousness / Binding Problem; the Free Will and Determinism Problem; and the Personal Identity and Persistence Problem. Beyond the philosophy of mind, other philosophical problems include: the Problem of Induction; the Problem of Evil and Suffering; and the Problem of Moral Realism vs. Anti-Realism. (Section 11 will discuss these problems further.)

The persistence of these many philosophical problems has led to a wide variety of philosophical proposals, including the abandonment of the concepts of an objective physical reality and a single coherent truth. Without the constraints of objective physical reality or a single coherent truth, postmodern philosophy has degenerated into a race to the political gutter. In the postmodern era, any idea, no matter how arbitrary or absurd, can be asserted if it advances the interests of one chosen identity group over another. This approach merely divides man against man in the pursuit of power and profit, while the classical goal of reaching true and mutual understanding has been set aside.

Without the constraints of objective physical reality, metaphysics, or a commitment to singular truth, physics has largely been reduced to a sophisticated fitting algorithm. Instrumentalism reigns: one fashions equations that work and then simply “shuts up and calculates.” Because the prevailing theories map impressively onto mountains of observational data, their supporters claim philosophical superiority. This mindset readily slides into scientism, in which technology itself becomes the new god. While the technological advances are real and impressive, we should not automatically accept the deeper philosophical claim.

Consider a simple illustration. A polynomial expression of the form $f(x) = \sum_n a_n x^n$ can be made to fit any finite set of data points perfectly by choosing a sufficiently high degree. A more elaborate construction, such as $f(x) = \sum_{mn} b_m x^m a_n x^n$, disguises the fitting procedure by breaking it into seemingly meaningful subcomponents. Moving still further and employing group theory with its associated matrices makes the disguise even more effective. The mathematical sophistication confuses even many practitioners into believing they have discovered deep truths about the world, when in reality they are still engaged in an elaborate curve-fitting exercise.

The Standard Model of particle physics exemplifies the approach of masking a fitting routine behind esoteric and highly complex mathematics. The masking becomes even more effective by

defining internal matrices with single abstract symbols. The Standard Model Lagrangian contains over 150 terms and 19 free parameters. When one includes the internal structure of its matrices, the total number of adjustable elementary components exceeds 1000. It is therefore unsurprising that such a complex mathematical structure can be tuned to match virtually all existing data. Yet none of this complexity answers the more fundamental rational question: what, physically, actually makes up our world?

Beyond the problems of complexity and physical incomprehensibility, the present physics paradigm is riddled with well-known internal inconsistencies and unresolved difficulties. Although QED is extraordinarily successful at matching experimental data, it relies on “running coupling constants,” meaning that quantities once regarded as fundamental constants — such as the elemental electric charge — are allowed to vary depending on the energy scale of the observation. QED also depends on renormalization, a procedure that replaces the infinities generated by the theory with finite values chosen to fit the data. General relativity produces its own infinities, called singularities, which occur when a large mass becomes sufficiently dense. Most dramatically, the predicted value of the cosmological constant — theorized to arise from the zero-point energies of quantum fields — differs from the observed value by roughly 120 orders of magnitude.

The deepest and most persistent problem in modern physics is the fundamental incompatibility between relativity and quantum mechanics. Einstein was a realist who drew heavily from Mach’s positivism[49] and Hume’s observationalism[16], yet while relativity is a realist theory, it strictly prohibits anything from traveling faster than light. Certain quantum phenomena — particularly the apparent faster-than-light collapse of the wave function — seem to violate this prohibition. This tension has been debated for a century, beginning with the famous Bohr–Einstein debates, continuing with the 1935 Einstein–Podolsky–Rosen (EPR) paper[50] on entangled states, and culminating in John Bell’s 1964 theorem[51] and the subsequent experimental tests of Bell’s inequalities[52]. Those experiments consistently confirm quantum mechanics while forcing us to reject at least one of three cherished assumptions: relativity, quantum mechanics itself, or realism.

Faced with the success of both relativity and quantum mechanics, the physics community largely has abandoned the demand for a coherent, realist ontology. Instrumentalism became the dominant practical philosophy. Philosophy had already laid the groundwork for moving “beyond” objective reality; physics followed suit. Objective physical reality and the pursuit of singular truth were quietly set aside.

Since Christianity is founded upon a singular, objective truth centered on the teachings, life, death, and Resurrection of Jesus Christ, the widespread rejection of singular truth in both philosophy and physics has left religion increasingly estranged from the thinking of the late 20th and early 21st century intelligentsia. Compounding this estrangement is the prevailing dogma that “you can’t argue with science.” As a result, religious pillars that had stood for two thousand years have come under sustained assault. In the early 21st century, science and scientism have ascended, philosophy has been dismissed as “woo,” and religion is being reduced to the status of a comforting but outdated myth.

4. The Ontology of Triunism.

The ontology of Triunism begins with an asserted Fundamental Philosophical Axiom:

There is a single truth, we seek that truth, and yet we can never fully achieve that truth.

The Fundamental Philosophical Axiom applies to Triunism itself. Being human, we are limited. Triunism therefore sets out to bound our efforts by what is possible for us to know, realizing that some things are beyond our reach. We aim to find that boundary, and within it we seek one universal truth capable of encompassing all knowledge without paradox. This aim includes a unified and harmonious philosophy that integrates both scientific and religious thought. We admit that the boundary may be expanded over time as advances are made. With that, let us proceed.

The ontological structure of Triunism is hierarchical. At the highest level lies the primary triune: space, time, and the material world. Triunism adopts absolute space and absolute time; relativity is set aside. Time is a pure primitive with no secondary triune. Space contains a strong secondary triune: three primitive, orthogonal dimensions (length, width, and depth). The material world contains a weak secondary triune, which will be described in detail below.

Time is the order that events occur; progressing from the past, through the present, and into the future. Time is measured by ideal clocks at rest in a preferred reference frame, far from any gravitating body.

Space is asserted to be three-dimensional, homogeneous, isotropic and flat. It serves as the stage upon which events occur. Spatial dimensions are measured by ideal meter sticks at rest in a preferred frame, far from any gravitating body. The orientation of these dimensions is not unique: one may arbitrarily choose the first direction; the second must be chosen orthogonal (perpendicular) to the first; and the third must then be chosen orthogonal to the first two.

Appealing to ideal clocks and meter sticks naturally raises the question of what those ideal standards actually are. Here we simply note that, within our realm of experience, atomic clocks provide a very close approximation to an ideal clock, while the distance traveled by light divided by its speed provides a close approximation to an ideal meter stick.

Space and time do not require clocks, meter sticks, events, or any material objects (including the aether) for their existence. They are simply the stage upon which events occur and the order in which those events take place. They simply are. They can be described by x , y , z and t , for width, depth, height and time, respectively.

While the concepts of absolute space and absolute time in Triunism may seem almost obvious to many readers, they stand in sharp contrast to much of the historical philosophical and scientific thought on the subject. René Descartes[12] identified space with matter itself, viewing extension as the essential property of material substance and rejecting the possibility of empty space. Isaac Newton[13], by contrast, famously posited absolute space and absolute time as independent realities — existing whether or not matter was present — describing space as the “sensorium of God.” Immanuel Kant[18] later argued that space and time are not objective features of the world but a priori forms of human intuition: the mind’s necessary framework for organizing experience. In the early 20th century, Einsteinian relativity[30,31] presented space and time as interwoven into a single, observer-dependent, and curved four-dimensional spacetime continuum. Triunism returns to the commonsense notions, quite similar to Newton, of absolute space as an objective stage upon which events occur and absolute time as the temporal order of those events.

Triunism makes no assertion concerning whether space and time are finite or infinite. A Big Bang cosmology[53], in which space and time began at a singular instant and have since expanded outward from an ill-defined initial volume, immediately raises difficult questions: What, if anything, existed “before” that instant? What lies beyond the current boundary of the expanding universe? These questions persist whether one attributes the origin to a Creator or to some impersonal happenstance. The prevailing scientific position — that it was happenstance and that there was simply “nothing” before the Big Bang — does not truly answer the questions; it merely sidesteps them.

An assertion of infinite space and time appears to resolve these issues by claiming that beyond any observable region there is simply more space and more time, with no beginning and no end. However, appeals to infinity should be treated with caution. In physics and philosophy, invoking infinity is often little more than an admission that we do not understand the situation. Such appeals can be used to “solve” almost any problem (as seen in renormalization procedures and singularities), but they frequently mask genuine ignorance rather than resolve it. Therefore, Triunism neither asserts that space and time are infinite nor that they are finite. It simply admits that we do not know. Our goal is to understand what can be understood within the finite regions of space and time accessible to observation. Beyond that horizon, we humbly accept the limits of present human knowledge.

The third realm of the primary triune is matter. Within matter there exists a weak secondary triune consisting of three types:

- M1 is all ordinary (non-aetherial and non-spiritual) matter;
- M2 is aetherial matter;
- M3 is spiritual matter.

These three types of matter are treated as distinct categories within the weak secondary triune because they initially appear fundamentally different. The triune is considered “weak,” however, because further analysis may ultimately show that the number of matter types can be reduced.

M2 is the quantum luminiferous aether — a solid, continuous background material that fills all space. Like the luminiferous aether of the late 19th century, M2 serves as the medium that supports light waves. Unlike the classical aether, however, M2 is fundamentally quantum mechanical in nature. It is composed of two types of aetherial quanta, designated as positive and negative. Light waves, gravity waves, and neutrinos are all identified as aetherial waves propagating through this background: for light, neutrinos, and gravity waves, it is the aether itself that is “waving.”

When sufficient energy is supplied to M2, individual quanta can be freed from the background aether. These freed quanta are called aetherions. The aetherions serve as the fundamental building blocks of preons, which in turn form the hadronic and leptonic matter presently known to science. For this reason, M1 consists of freed M2 quanta together with the waves that propagate through M2. This is one key reason the material realm constitutes a weak secondary triune: because M1 is ultimately composed of M2 and processes within M2.

Beyond the physical layers of M1 and M2, M3 encompasses consciousness, agency, the immortal soul, objective moral truths (including good and evil), political and social order, and logical and mathematical realities. These higher aspects of reality are fully real and causally efficacious, restoring the rich ontology that modern materialism and instrumentalism have largely discarded. While it is tempting to include the divine within M3, Triunism treats the divine analogously to the

possible infinities of time and space: as limited humans, we likely cannot fully grasp the enormous glory of God.

Due to the lack of strong observational data, M3 is not as well defined as M1 and M2, and therefore two distinct possibilities remain open at present. It is possible that M3 consists of highly organized standing waves or some special combination of freed aether (distinct in structure from M1). Alternatively, M3 may be a completely different kind of material than M2.

In addition to the interactions between M1 and M2 described above, the ontology of Triunism also involves interaction between M1 and M3. Triunism proposes that M3 is able to interact with M1 by enabling the preferential collapse of M1 quantum states. M3 is also able to interact with M1 through shared knowledge of M1's existing states.

There can be other triunes one might consider: science, philosophy, and religion; the past, present, and future of time; the origin, negative, and positive of spatial dimensions; the Holy Trinity within Christianity; electrons, protons, and neutrons comprising the chemical elements; or the three ABC preons. However, such examples are not definitive. In the case of preons, as well as electrons, protons, and neutrons, there are actually six such particles when we consider antimatter. The origins of the spatial dimensions are arbitrary. The present moment in time continually changes. Philosophy can be viewed as containing science and religion, each with its own sub-branches. And a full understanding of the Holy Trinity is likely beyond our reach. For these reasons, none of the additional possible triunes mentioned are part of the Triunism ontology defined here. Triunism is not a theme that "everything comes in threes." It is simply the name for the philosophy described in this paper, and the name derives from the primary and secondary triunes described in this ontology. No further triunes are foreseen or necessary at this time.

The ontology of Triunism is remarkably parsimonious. At the highest level it requires only the primary triune of space, time, and the material world. Within the material world there are only three types — M1, M2, and M3 — with M1 and M2, and possibly M3, all arising from just two fundamental entities: positive and negative aetherial quanta. This simple, hierarchical structure provides a lean yet powerful framework capable of encompassing both the physical world and the realm of the spirit.

5. Triunism and the Great Philosophical Debates.

The history of philosophy is marked by a series of enduring debates: objective reality versus nominalism; metaphysics versus instrumentalism and observationalism; absolute versus relative; continuous versus discrete; free will versus determinism; dualism versus monism (and, as a subset of monism, materialism versus idealism); theism versus atheism; faith versus reason; locality versus non-locality; and one reality versus the multiverse or many worlds. In this section we examine Triunism's position on these classic questions.

Triunism rejects nominalism and asserts that M1, M2, and M3 are objectively real, that there is only one reality, and that there is a single coherent truth. Yet while objective reality exists, the aetherial quanta are quantum entities and are therefore only partially observable. If we attempt to measure their position (or size) accurately, we cannot know their momentum very accurately, and if we attempt to measure their momentum accurately, we cannot know their position (or size) very accurately. Nevertheless, we are free to propose their quantum existence and to derive equations from that hypothesis that make testable predictions, thereby providing empirical validation for our underlying ontological claims.

Triunism embraces a return to metaphysics and rejects both instrumentalism and observationalism. It asserts that objects within M1 and M2 are “things-in-themselves” and that it should be science’s fundamental goal to construct physical models of those objects. This modeling should begin with inductive reasoning to arrive at hypotheses about the nature of those entities, followed by deductive reasoning to generate an understanding of specific cases. This realist approach stands in stark contrast to both instrumentalism and observationalism. It refuses to grant observations supremacy over a deeper understanding of what produces those observations, and it completely rejects the instrumentalist attitude of giving up entirely on finding a coherent understanding of our world.

Triunism asserts an absolute theory and rejects relativity. This position has already been outlined in the ontology section above and will be developed in more detail in section 6.

On the debate between the continuum and the discrete, Triunism embraces the idea that quantum entities are wave packets that collapse to different wave packets upon momentum transfers or upon direction from M3. Collapsing wave packets incorporate both the continuous and the discrete. Internally, a wave packet is a continuous body executing wavelike motion. Yet in the collapse, the wave packet acts as a discrete entity. Therefore, Triunism embraces a continuous body that discretely collapses to another continuous form. This is philosophically quite different from the prevailing wave/particle duality. Rather than a point-like entity somehow embedded in a wavefunction that determines its fate, Triunism proposes a waving entity that exhibits all-or-nothing behavior upon wavefunction collapse.

Triunism embraces free will and rejects determinism. It asserts that M3 interacts with M1 by enabling the preferential collapse of M1 quantum states. In this way, the soul is capable of causing wavefunction collapses that preferentially fire neurons (or affect other matter) within living creatures. This interaction provides the crucial link between the soul and the body and enables libertarian free will. The soul (an M3 entity) chooses, and the body (an M1 entity) responds to that choice by selecting a quantum state among available quantum states. Without M3 interaction, quantum mechanics remains non-deterministic and random. With M3 interaction, preferred quantum collapse becomes the mechanism for genuine agentic action in an otherwise non-agentic physical world. Since M3 merely chooses among existing quantum options, there are no M1 energy or momentum conservation violations during the choosing process.

Triunism’s free will hypothesis has some similarities to the Orch OR hypothesis of Penrose and Hameroff[54], in that both appeal to quantum collapse. However, Triunism does not limit the M3-M1 interaction to being confined to microtubules, it has nothing to do with the spacetime continuum nor the Planck scale, and consciousness resides in, and choices are made by, the immortal M3 soul, and not an ill-defined gravitational effect.

Triunism’s approach to the debate between dualism and monism (and, by extension, between materialism and idealism) is nuanced. Classically, Descartes[12] proposed a substance dualism of extended matter and thinking substance, while monism selects one or the other, leading to either materialism or idealism. In Triunism, M3 is similar in some respects to Descartes’s thinking substance: it is the realm of thought, consciousness, and the soul. However, as discussed in the ontology section, M3 may ultimately be a highly organized form of M2. In that case, Triunism’s material realm would be monistic and materialistic. Alternatively, M3 may be an entirely separate material from M2 (and M1), leaving Triunism’s material realm dualistic. (In either case, space and time remain part of the primary triune). Since we do not yet have sufficient empirical data to decide between these possibilities, Triunism’s material realm may ultimately prove to be either monistic

or dualistic. Importantly, Triunism's M3 differs from Descartes's thinking substance in that M3 is material and has extension, whereas Descartes's thinking substance was non-material and had no extension.

Before leaving the topic of dualism, monism, materialism, and idealism, it is important to contrast Triunism with the currently ascendant monistic atheistic materialism. In the terms of Triunism, this prevailing view concerns only M1, with all thought processes ultimately governed by the actions of the M1 material brain. In Triunism, even if the material realm ultimately proves to be a single monistic substance (M2), we still retain a distinct M3 that serves as the center of thought and the immortal soul. The substance may be monistic, but the effects would still be dualistic.

Triunism embraces theism and rejects atheism. It accepts Jesus Christ as the Son of God, born of a virgin, who was crucified, died and was buried, rose again in the Resurrection, and who was ascended into heaven.

Unlike the present situation in which faith and reason are presumed to be opposing forces, Triunism embraces both. This stance flows naturally from the recognition that a single, coherent truth cannot be opposed to itself.

While the locality versus non-locality debate continues in a relativity-dominated academic world, Triunism makes the entire debate moot by asserting an absolute theory. In an absolute framework, there is no universal speed-of-light limit on causal influences, so even spatially distant events can interact directly and remain fully causal.

It is again relativity that leads to the debate of one reality versus many worlds. Triunism's assertion of absolute theory makes the many-worlds debate moot, as faster-than-light collapse explains the previous mysteries associated with quantum mechanics. The multiverse is also unnecessary, as it (like God and the possible infinities of space and time) lies in the realm beyond the observational and cognitive limits of man.

With its simple triune underpinning, Triunism enables a return to a philosophy that is absolute and one that embraces objective reality and metaphysics. It allows for an immortal human soul, libertarian free will, and a single coherent truth. Triunism rejects much of modernism and fully rejects postmodernism, picking up where Descartes left off by making the few modifications and additions discussed above. It is a philosophy that is quite consistent with traditional Christian belief while also remaining consistent with all present scientific observations.

6. Triunism and the Observational Record: Returning to an Absolute Theory.

A common contemporary mistake — even among some physicists — is to believe that an aether has been experimentally disproven by the Michelson-Morley experiment[26]. Although it is correct that the experiment failed to detect the Earth's motion through the aether, an ether-based explanation for that null result was provided by Hendrik Lorentz in his Lorentz Ether Theory (LET)[27]. Lorentz proposed that clocks slow down and measuring rods contract in the direction of motion as they move through the aether. George FitzGerald[28] and Joseph Larmor[29] contributed to this framework through their work on length contraction and time dilation, respectively. A critical element of LET was the Lorentz transformation equations, which placed time dilation and length contraction into precise mathematical form. It was well known that, under LET, the speed of light would appear constant to all observers — a result that follows directly from the Lorentz transformations.

Later, in 1905, Albert Einstein derived his special theory of relativity[30] by starting with the postulate that the speed of light is constant (rather than merely appearing to be) for all observers. He added his relativity postulate and essentially ran the previously known LET derivation backwards to arrive at the Lorentz transformation equations. The mathematics of special relativity is identical to that of LET, but the underlying philosophy is radically different. LET maintained that space and time are absolute, and that moving clocks and meter sticks simply give incorrect readings. In LET, the Lorentz transformations describe the fictitious time and space coordinates measured by moving observers, while a single absolute time and single absolute space remain. In relativity, the philosophical position is that any observer is as good as any other when defining time and space. What appears as a purely spatial separation between events to one observer may be a mixture of spatial separation and time difference to another. In relativity, time and space are relative, with time and space transforming into each other depending on one's motion. This led to a new conception: instead of being separate entities, space and time became components of a single four-dimensional spacetime continuum.

Since special relativity and LET used identical mathematical equations, there was no real testable difference between the two theories prior to the advent of quantum observations. There were, however, very significant philosophical differences that had important consequences for the speed of light. In LET, the speed of light was simply the velocity of a specific type of aetherial wave. In relativity, the speed of light not only described how fast light moved but also represented a universal maximum velocity that nothing could exceed. This distinction became critically important once quantum mechanics advanced.

Since there were no testable differences between LET and special relativity, special relativity was not readily accepted by the physics community. The situation changed, however, with the proposal of general relativity in 1915[31]. General relativity took the spacetime continuum from special relativity and added the idea that mass would curve its four-dimensional structure. This proposal explained the long-standing anomaly in the advance of Mercury's perihelion, which had resisted Newtonian orbital theory. General relativity accomplished this while recovering Newtonian gravity as a first-order limit, and it also predicted the bending of light around massive objects. Combined with the successful explanation of the perihelion advance, the prediction of light bending cemented general relativity's reputation as a major advance, even sometimes declared to be the greatest advance, in the history of humanity's understanding of nature.

However, the philosopher knows that there can be more than one coherent explanation for the same set of observations. As noted, the results of special relativity are fully consistent with an absolute theory. Triunism embraces the view that the Lorentz transformations arise from an underlying aether and therefore asserts a return to absolute theory. Hence, what is now required is to offer a viable alternative to general relativity.

7. Triunism and the Observational Record: An Improvement over General Relativity.

The Quantum Luminiferous Aether[55], or QLA, is an alternative to general relativity and is adopted as an important component of Triunism. QLA begins with the philosophical axiom that a partially observable reality exists. It then proposes a two-component aether and accepts that many standard physical assumptions apply to that aether, including length contraction, time dilation, elementary quantum theory, and Newton's force law. From this foundation, QLA proposes five postulates.

- **The Aether Flow Postulate:** When aether of one type flows relative to aether of another type, a flow force is generated that is proportional to the flow, and the force is aligned with the flow.
- **The Aether Tension Postulate:** In the absence of external effects, the tension within a quantum of attached-aether is proportional to the separation of any two parallel faces of its surrounding volume.
- **The Aether Density Postulate:** In any volume, the density of the positive-aether equals the density of the negative-aether minus an amount proportional to the extrinsic-energy within the volume.
- **The Aetherial Displacement-Work Postulate:** When attached-aether is displaced, work is done on the aether by the tension and quantum-force fields that is proportional to the force, proportional to the distance of displacement, and proportional to the amount of aether displaced.
- **The Extrinsic-Energy Force-Reduction Postulate:** The presence of extrinsic-energy decreases the positive (negative) attached-aether tension and the negative (positive) attached-aether quantum-force by an amount proportional to the amount of extrinsic-energy present with a constant of proportionality KG1 (KG2).

Note that these simple postulates are ones we might naturally expect from our everyday experience with ordinary matter. We expect that flows will produce forces aligned with and proportional to the flow. Tension in an object, such as a spring, is typically proportional to how much the object is stretched. It is a reasonable guess that nature might aim to equalize its positive and negative components. The work done as the aether moves through force fields is what we would expect. Heating a spring by adding energy into it generally reduces its tension, and we propose a matching reduction in the elementary quantum mechanical force field that arises from quantum pressure. Admittedly, inductive reasoning was also applied in arriving at the postulates, as this set was then used to deductively arrive at the desired results.

From this very simple basis of common assumptions, the fundamental axiom, and the five postulates, rigorous derivations lead to the equations of electrodynamics (Maxwell's equations and the Lorentz force law), Newton's law of universal gravitation (in the appropriate limit), and to two field-masses. The theory successfully meets the classic tests of general relativity: calculations for the advance of the perihelia, the Shapiro time delay[56], and the gravitational redshift agree with experiment, and the bending of light in gravitational fields[32] is also understood. Additionally, gravitational waves are accounted for, and the first of the field-masses provides a natural explanation for what is currently known as dark matter.

By providing a unified derivation for the presently used equations of both electrodynamics and gravitation, QLA is in full agreement with all electrodynamic and classical gravitational observations. (Higher-order gravitational issues, such as frame dragging, have not yet been analyzed in detail.) QLA not only offers an absolute replacement for general relativity; it improves upon it. In general relativity, Einstein simply assumes that Maxwell's equations and the Lorentz force law are "nature's laws." He makes no attempt to understand where they come from and provides no derivation of them; QLA derives them. (Newton also only provided his law of universal gravitation without deriving it; QLA derives it.) And beyond forming a foundation for electrodynamics and gravitation that matches general relativity in terms of its classical observations, QLA also matches observations now attributed to dark matter.

8. Triunism and the Observational Record: Quantum, Particle, and Nuclear Physics.

With electrodynamics and gravitational observations accounted for, Triunism must now address quantum, nuclear, and particle physics observations to complete the understanding of physics.

An understanding of quantum mechanics has eluded physics for a century. Yet by embracing a single objective reality and an absolute theory, Triunism brings clarity. This is fully described in the paper “Understanding Quantum Mechanics,”[57]. A realist philosophy allows physical modeling in which light, gravity waves, and neutrinos consist of quantized wave packets of oscillating aether, while other particles — such as electrons, protons, neutrons, and atoms — consist of quantized wave packets of oscillating material where that material is a bound state of freed aetherial quanta. When momentum is exchanged in collisions between such quanta, the wave packets collapse into different wave packets in a faster-than-light manner. This philosophy becomes possible once relativity is set aside, and it provides a coherent physical explanation for all observations, including those of entangled states. Once the speed-of-light limit is removed, all interactions can remain fully causal, and the great quantum mystery is readily explained.

We now turn to particle physics. At this point in our discussion, it is relevant to expand on our earlier overview of mankind’s evolving understanding of the elements that make up our world. The first recorded theory of elements was the ancient idea of earth, fire, air, and water (and sometimes aether), a very simple framework embraced by Greek, Chinese, and Indian societies. Over time, as more observations accumulated, this theory expanded and was eventually replaced by the modern theory of chemical elements, which now number over 100. Further experimental observations revealed that each chemical element is composed of electrons, protons, and neutrons, reducing the number of fundamental entities to three. However, particle accelerator experiments soon discovered heavier particles similar to the electron, neutron, and proton, along with their antimatter counterparts. This once again produced a very large number of “elementary” particles: the so-called “particle zoo.” Murray Gell-Mann[58] and George Zweig[59] showed that this proliferation could be explained by proposing that the particles were composed of more basic building blocks called quarks and leptons. The pattern in our understanding of nature is clear: a simple underpinning gives way to complexity, and that complexity is later resolved by proposing a new, simpler underpinning.

In the present Standard Model of particle physics, the number of elementary particles has once again proliferated. There are six quarks, each with an antiquark, and the quarks come in one of three colors while the antiquarks come in one of three anti-colors. There are three massless leptons, three massive leptons, and their antiparticles. There are photons, three weak intermediate vector bosons, eight gluons, and a Higgs boson. This brings the total number of elementary particles to over 60 — a situation that, historically, has been a strong indication that a simpler underlying structure remains to be discovered.

Triunism adopts a new elementary particle model as described in three papers, two on the ABC preon model[60,61] and one on aetherions[62]. In these papers, it is shown that all quark, lepton, intermediate vector boson, and Higgs boson observations result from particles being composed of six preons, and that the six preons are themselves made up of only one or two aetherions. Aetherions are simply freed aetherial quanta from the background aether. Photons, neutrinos, and gravitons are waves upon the aether. Since all particles of the Standard Model are understood as composites of aetherions, all of the particle physics observations described in the Standard Model are now understood as arising from just two particles: the aetherions.

The final physics observations to account for involve nuclear forces. In parallel with the development of the quark and lepton model, theoretical physicists developed quantum field theory to explain nuclear and particle physics in a unified way. Each quark and lepton is assumed to be the instantiation (or excitation) of an underlying quantum field. The force interactions between the particles are then embedded into the theory through the Lagrangian of the Standard Model, which employs conservation laws discovered in particle physics to infer symmetries within that Lagrangian. It is important to note that the Standard Model is fundamentally a mathematical model, not a physical one.

Since Triunism returns to metaphysics and objective reality, particles and forces are treated differently from what is found in the Standard Model. Particles are not instantiations of ever-present quantum fields; rather, they are real entities made up of individual quanta of aether. All particles (excluding aetherial waves) are composed of aetherions. In rare cases an aetherion might be unbound, but typically aetherions are bound together in various ways. These are real, physical objects that exhibit quantized waving motion. Forces arise because of the disturbances that these particles make within the background aether; these disturbances cause the aether to have increased internal energy, and when a second particle enters the aetherial disturbance, energy is reduced if that second particle begins to move appropriately. Both electromagnetism and gravity work this way. At this point in its development, Triunism does not have a quantitative treatment for nuclear forces; it only offers a qualitative proposal that the nuclear force results from the aetherial disturbances caused by angular momentum. This qualitative proposal explains many nuclear force observations, but it is admitted that a fully quantitative theory is needed to complete the description. It is also noted that while the branching of various particle decays is accounted for in the aetherion and preon modeling, the branching ratios are not. The Standard Model does have a model for those ratios. As was the case with frame dragging discussed in Section 7, additional work remains to be done for the nuclear physics portion of Triunism. In addition to branching ratios, a quantitative theory of nuclear binding is needed as well. Triunism is a new foundation; it is not yet complete.

It is useful now to take a step back and look at the larger picture. As mentioned above, the entire Standard Model has become quite complex. In addition to the over 60 particles, there are also 19 free parameters and over 150 terms in the Lagrangian. Including the internal elements of the matrices, over 1000 entities make up the Standard Model. When combined with quantum electrodynamics, a complete model of our physical world is achieved that matches almost all data quite well. Problems exist, as mentioned in Section 3 above, but in each realm the data is quite well determined. The Standard Model and QED are monumental achievements that provide an excellent match to all present observational data.

Yet it is of value to recall an earlier theory. The old Ptolemaic system of a deferent and epicycles was also a monumental achievement that provided an excellent match to all observational data of its day. Indeed, if one so desired, that system could still be extended to match all observational data today; we would simply need to keep adding more and more epicycles. The issue wasn't that it was wrong — it was that it was becoming horrendously complex. This complexity was, in hindsight, a harbinger of a simpler system to come.

Triunism asserts a model far simpler than the Standard Model. Rather than over 60 particles, Triunism has two. Rather than a highly complex Lagrangian and a separate general relativity for gravity, Triunism employs four fields to rigorously and quantitatively derive electromagnetism and gravity in a unified way from a central axiom and five postulates. A fifth field is qualitatively

proposed for the nuclear force, again in a unified way. Triunism has a vastly simpler basis than the present Standard Model. And, as will be discussed below, it also provides answers to many prevailing problems.

9. Triunism and the Observational Record: Confronting the Present Paradigm of Monist, Materialist, Instrumentalist Atheism.

Under Triunism, the physical world belongs to M1 and M2, and we have seen that M1 and M2 can be explained with an absolute theory, metaphysics, and an assumed objective reality. But what about M3? In the presently dominant philosophy of monist, materialist, instrumentalist atheism (a central component of nihilistic, monistic, materialistic, atheistic, relativist instrumentalism) there is no M3. (Nor is there presently an appreciation of M2.)

Indeed, all physics experiments show no evidence of M3. Why would we conduct experiments to measure constants of nature if we could alter those constants simply by applying our will? Herein lies an important point. Physicists actively exclude human agency when performing their experiments. It would make no sense to allow someone to go in and change the data by hand, or to “put a thumb on the scale,” when we are trying to understand nature’s laws.

Yet it also makes no sense to draw the conclusion that there is no M3 just because experimental validation of M1 in the absence of M3 shows no effects of M3. Of course it doesn’t: M3 was meticulously excluded from the M1 experiments! Yet this is precisely where we find ourselves with monist, materialist, instrumentalist atheism.

So, why did monist, materialist, instrumentalist atheism arise to prominence in late 20th and early 21st century Western civilization? Three unseemly factors come into play. The first factor is human desire. Christianity places curbs on human behavior when certain behaviors harm others, and those curbs can constrain desires. This has always been a central point of Christianity: mankind is prone to the temptation presented by sinful desires, and there is always tension between those desires and living a life of Christian virtue. A monist, materialist, instrumentalist atheism sets aside the concept of sin entirely and eliminates many curbs on human desire. This makes the atheist philosophy very alluring.

The second factor in the rise of monist, materialist, instrumentalist atheism is the illusion of superiority given to those who mistakenly think of themselves as being intelligently scientific. People can wrap themselves in this most modern philosophy under an advertised position of it being the most intelligent view. Not only do they get a license to give in to their desires, but they also delude themselves into thinking they are better and more advanced by doing so.

The third factor in the rise of monist, materialist, instrumentalist atheism is the undeniable success of technology. The instrumentalist approach of arriving at equations, no matter how, and then using those equations to develop many techniques and inventions has, without question, improved the lives of many. Yet without moral curbs, we risk the ancient premise of gaining the whole world (for a time) while losing our own soul.

The three unseemly factors are, from a Christian perspective, the work of the devil. Recent trends toward the commoditization of human life are deeply troubling. Where abortion was originally sold as being safe, legal, and rare, it has now become commonplace and is described as a mere choice. Abortions may be used to avoid a child with Down syndrome or merely to select the gender of the baby. IVF often discards embryos without a second thought. Euthanasia is on the rise. The sexual mutilation of children under a trans agenda is hotly debated. The leading technological push

to create a new god through AI is nihilism drunk with power. What Christianity calls evil is now called good, while what it calls good is now called evil. Morally, we have no compass. And all of this comes about because of the modern philosophical paradigm of monist, materialist, instrumentalist atheism — which itself relies on the central error of excluding M3 from experiments and then concluding that M3 does not exist because the experiments show no evidence for it. The result is often a stronger tendency to follow personal desires, with less consideration of the effects on others or what serves a greater good.

10. Triunism and the Observational Record Beyond Physics: Evidence for M3.

Providing evidence for M3 faces a rather fundamental challenge in that it lies in the realm of the spiritual, consciousness, the soul, and God; topics traditionally associated with religion. Unlike science, which relies on repeatable experiments, or philosophy, which relies on logical argumentation, religion often draws on faith, mysticism, and singular historical events. Yet there is also significant observational support for M3. We will begin this section with evidence for the existence of a human soul, then discuss evidence concerning the life of Jesus, and finally offer a few thoughts on God.

Before discussing the existence of the human soul, we should define what a soul is. Part of our soul is our consciousness. The soul is that which observes through our M1 senses, maintains memories, and makes choices. It is the very essence of who we are. During our material lifetime, our M3 soul predominantly exists within our M1 body. It will survive our bodily M1 death.

As mentioned in Sections 4 and 5, M3 interacts with M1 via the phenomenon of preferential quantum collapse. We know from physics experiments that quantum events will occur randomly if there is no agentic interaction. However, within humans (and perhaps within other living things) Triunism asserts that M3 can guide a quantum state to a preferred outcome. This provides the critical mechanism allowing our soul to make choices. Our soul can interact with our neurological cells to fire in just the right way to exercise our will.

Crucial to the differentiation between Triunism and deterministic atheism is the ability to choose. If, as in the thinking of the present zeitgeist, humans are merely “meat computers,” then one would expect the results of human activity to be merely probabilistic outcomes driven by the need to survive. On the other hand, if the power of genuine choice is available to us, that indicates that there is something within man that lies beyond the purely materialistic.

A rather simple example provides overwhelming statistical evidence that human agency exists. Consider a 280-character post on a social media platform. There are roughly 100 possible options for each character. If a single character is typed purely at random (for example, the letter “a”), there is about a 1 in 100 chance of it appearing. For 280 characters, the odds become 1 in 10^{560} , which is truly infinitesimal. Such posts also typically convey coherent meaning and logic, whereas a random production of the available characters would be mere gibberish. In physics experiments, statistics of this magnitude would be taken as definitive proof of *something*. Triunism asserts that the *something* being proven is evidence of M3 — strong evidence of a human soul.

Now the atheist philosopher might respond that the odds are actually far higher. The atheist argument could be that the meaning and intent of the 280-character post, along with spelling and grammatical rules, mean that the underlying odds are far greater than 1 in 10^{560} . The atheist might further argue that present artificial intelligence (AI) systems also produce meaningful sentences. These arguments can, however, be challenged by the following sentence:

“Hoomans cun chuse tu mispell wurd, indicatyng thare powur uf choiss.”

The above sentence conveys the same meaning as “Humans can choose to misspell words, indicating their power of choice,” but it is spelled deliberately, with each misspelling carried out by changing individual characters. While it would also be possible for an AI system to produce such a sentence, a human or some other being with M3 would need to prompt the AI system to achieve this end. Going back to the human-produced version, the human chooses each character as he or she types, often correcting typos as they go.

Typed communications are extremely strong evidence of the human ability to choose. Humanity has produced far more than a single 280-character post. Libraries are full of literary works. The internet streams vast amounts of intelligent communication in the form of characters strung together. This gives us sound evidence for the existence of the soul.

It is also important to note that the odds of typing a single 280-character post are actually even lower than the 1 in 10^{560} value we have discussed. Instead of typing any particular character, the human could choose to get up and walk away, or take any of an enormous number of different actions.

Beyond choosing, there is other evidence for the existence of the human soul. Out-of-body experiences, near-death experiences, and psychedelic experiences all provide additional evidence that the human soul exists. In these experiences, witnesses often report remarkably similar phenomena. This repeatable observational evidence is similar in some respects to the scientific standard, yet the variability within individual experiences does separate them from what is usually described as scientific evidence.

The committed atheist philosopher will of course deny the evidence from out-of-body, near-death, and psychedelic experiences. In this case, the experiences are typically explained away as delusions brought on by drugs or trauma. But for Triunism, the eyewitness accounts are treated as additional evidence as we seek to understand our postulated objective reality.

The next subject within the realm of M3 concerns the specific life, death, and Resurrection of Jesus Christ. In the late 20th and early 21st centuries, much of the intelligentsia has largely dismissed many of the central Christian claims concerning Jesus. This rejection stems from the fact that the Resurrection and other miracles associated with the life of Jesus are not events that can be repeatedly validated. They appear to represent a series of now untestable singular events. Similar, more modern claims of singular events are often (but not always) found to be erroneous or fraudulent, and this leads many to question whether the Christian claims are also simply wrong.

Even though Christian fact assertions are typically not amenable to repeatable experimentation, there are substantial arguments that support their plausibility. Many of the miracles attributed to Jesus are things that, while hailed as miracles in their day, are now possible with modern technology. We can arrange for virgin birth now, and modern medicine routinely performs cures that would have been considered miraculous in Jesus’s time.

The singular events of Jesus’s Resurrection and His ascension into heaven are truth claims that we cannot replicate with modern technology. Nonetheless, there is significant supportive evidence for these events as well. Nearly all of His original followers (the apostles) died rather than recant their testimony that the Resurrection had indeed happened. While dying for one’s faith as a martyr is common, such deaths usually result from someone being instructed in their faith by others and do not involve eyewitness testimony. The fact that so many willingly died for something they

personally claimed to have witnessed is very powerful evidence that the Resurrection story is true. It also passes a logical test: if one has indeed witnessed the Resurrection, and this life is revealed to be temporary with a greater one to come, it is entirely rational to lay down this life rather than risk the greater reward.

Once we accept Jesus's Resurrection and His ascension into heaven as true, we also gain a consistent understanding of the other aspects of His life and teachings. He was more than just a man, in that He could heal the sick. Being more than just a man, it is sensible that He was born of a virgin.

Further evidence for the truth of Jesus's Resurrection and His ascension into heaven comes from personal experiences, anecdotal events, and the changes that have occurred on earth once His message was taken to heart. Many have witnessed and expressed His presence in their own lives. Miracles have been reported. And mankind has progressed significantly from the times of the Roman Empire, where crucifixion was used as a barbaric tool in the exercise of raw power.

The next topic within M3 concerns God. Does God exist? Can we prove God's existence? Who or what is God? Since Triunism incorporates Christianity, it also includes a Christian viewpoint of who God is: in essence, God is the Father whom Jesus proclaimed. Jesus told many parables concerning His Father, but beyond settling upon a belief in God the Father based on Jesus's teachings, we must admit that there is much about God we simply do not know. God, then, belongs to the class of the unknowable in the same way as whether space and time are finite or infinite. In each case we know something finite about them, but we do not know — and perhaps are inadequate to know — the final answers.

Within this standpoint of humility, Triunism doesn't specify much more about God than that we should rely upon what Jesus taught us. We can, however, offer comments on the dominant contemporary arguments concerning the existence of God. These arguments include the Kalam Cosmological Argument[63], the Problem of Evil[64], the Fine-Tuning Argument[65], the Ontological Argument[66], the Moral Argument[67], and the Divine Hiddenness Argument[68]. We will find each of these arguments to be unconvincing.

The Kalam Cosmological Argument for God asserts that 1) everything that begins to exist has a cause, 2) the universe began to exist, therefore 3) the universe has a cause, and 4) the cause of the universe is God. In Triunism we maintain that we do not know whether there was a beginning, as both time and space might be infinite. Even the initial Kalam assertion is suspect. The Kalam argument is unconvincing.

The Problem of Evil argues against God by asserting that an omniscient, all-powerful, and all-good God would not allow evil and suffering, yet evil exists, so there must be no God. In Triunism we maintain that we do not know the fullness of God, and hence the Problem of Evil argument is unconvincing. We can also point out that evil accompanies free will, and to the extent that life is the exercise of free will — and that life is good — then evil comes along with it. And if, at the end of our M1 existence, God makes full reparations, good can be restored where evil once was done.

The Fine-Tuning Argument for God is set aside here as not being very relevant. Feynman had a good observation on a similar matter when he remarked that the odds of a specific license plate having the numbers it does are indeed quite low. But they are what they are. Similarly, the physical constants are what they are. The Fine-Tuning Argument is unconvincing.

The Ontological Argument for God, from Anselm, states that God is that “than which nothing greater can be conceived.” Such a being exists in the mind; but a being that exists in reality is greater than one that exists only in the mind. Therefore, God must exist in reality (to avoid contradiction). This argument conflates existence in the mind with full and true existence; they need not be the same — the mind can contain delusions. The Ontological Argument is unconvincing.

The Moral Argument for God asserts that objective moral values and duties exist (e.g., torturing innocents is wrong regardless of human opinion or culture) and that these require a foundation best explained by a transcendent moral lawgiver (God) whose nature grounds morality. As with some of the other arguments, the assertion can be challenged. Objective moral values and duties may not exist. The Moral Argument is unconvincing.

The Argument from Divine Hiddenness states that if a perfectly loving God exists who desires relationship with creatures, He would make His existence sufficiently evident to non-resistant, capable persons (so they could believe and relate). But widespread non-resistant nonbelief exists (sincere seekers, historical and geographic disparities, “natural nonbelief” in some eras). Therefore, such a God likely does not exist. To the Christian, the life, death, and Resurrection of Jesus Christ make God’s existence sufficiently evident; so much so that those who do not believe are resisting. The Divine Hiddenness Argument is unconvincing.

With the dominant arguments about the existence of God asserted to be unconvincing, Triunism takes the position that the Christian proof of God comes from the life, teachings, death, Resurrection, and Ascension of Jesus Christ, the evidence that His teachings improved relations among men, and the many reports of miracles and personal experiences. Proof of the existence of the human soul is supportive as well. The proof of the Resurrection and Ascension of Jesus, and the proof of the existence of the human soul, has been discussed above. While an avowed atheist will claim group delusion or mass hysteria for these proofs, Triunism asserts that these proofs are convincing. They are indeed proofs, but, since we are dealing with M3, the proof does not come from experiments done on M1.

With the Christian God now accepted, the next question is: who and what is God? Here, we must again return to humility. How can we understand a being vastly superior to us? How much does an ant understand about man?

While speculation is possible as to who and what God is, any such speculation takes us into a realm similar to that of the infinities of space and time. We may simply be unable to arrive at an answer. As Christians, we may profit by primarily limiting our efforts to understand God to the stories of the Father that Jesus told, as He is the most direct source. And those stories are within the boundaries of what we may be able to comprehend. The exact specifics of God are something we do not, and likely cannot, understand.

Beyond the analysis of the soul, Jesus, and God, we should also turn to an issue with the Holy Bible, a foundational series of books for the Christian religion. Specifically, there are multiple biblical passages that are in opposition to what we would expect, given the present scientific record. Examples of such passages are those that assert a six-day creation[69], the changing of the rotation of the Earth for Joshua to win a battle[70], and the story of Noah and the ark[71]. While there are several others, these passages are an extremely small portion of the Holy Bible, and they are predominantly in its first book, Genesis. But since they are extraordinary, they are also very well-known and sometimes proclaimed as evidence for the great power of God. These passages

present an enormous difficulty for Christianity, because if any fallibility is admitted to within the Bible, then where do we draw the line? Yet not admitting fallibility has led many to abandon the faith.

One way out of the dilemma is to say that some biblical passages are not to be taken literally. Yet if we follow the Fundamental Philosophical Axiom, it would be best to admit that the Holy Bible is an excellent book, but like all works where man is involved, it is only another step toward the truth, but it does not reach the full truth. The problematic passages have little relevance to the life, teachings, death, Resurrection, and Ascension of Jesus. The Bible provides an excellent moral footing, not a scientific one. So where do we draw the line on acknowledging fallibility? We doubt everything, both religiously and scientifically, and evolve our thinking when the evidence becomes large enough to do so. All past works, including the Bible and the works of Newton, should remain unchanged, as this both preserves their historic value and also retains them as foundations for where we are today. But we should also continue to probe further toward truth. If individual aspects of the foundational works appear to be incorrect, and our thinking about them needs updating (e.g., Newtonian gravity; six-day creation), it does not mean that other aspects (e.g., $F = dp/dt$; the Resurrection) should also be discarded. While extremely important, the Bible and the works of Newton are only a portion of the single truth we seek.

In this section we have presented voluminous evidence for M3. Due to the nature of M3, much of it can be argued against. The evidence for the truth claims of Christianity is not the same as scientific evidence, but it is evidence, nonetheless. Notably, it is not Christianity that is attempting to present a new approach to what is believed. Christianity has survived for nearly two thousand years, with many of the world's most brilliant minds accepting it. It is instead the modern atheistic view that is attempting to rewrite (or at least declare as delusional) the historical record that has stood since shortly after the time of Jesus. The atheist may likewise dismiss other evidence of M3 as delusional since it is reported by eyewitnesses or through personal experiences. However, even the atheist may have trouble explaining away the evidence of the soul that comes from typing out the vast literary works of man. The atheist usually accepts the claims made by physicists, even though the atheist may not have measured any physical constants personally. The atheist may support this position because the physical constants can be repeatedly measured by different physicists. But it is also the case that out of body, near death and psychoactive experiences are repeatable. Calling any one set of observations delusional while admitting only other observations is what is delusional. There is voluminous evidence for M3.

11. Triunism's Contributions to Addressing Present Paradigmatic Problems.

In Section 3, we listed several problems of the present philosophical and physics paradigm. Here we will discuss how Triunism addresses those problems. We will name each problem, briefly state what it is, and explain how Triunism addresses it, one by one. We'll start with problems in philosophy.

The Interaction Problem: How can an immaterial (or distinct) mind causally influence or be influenced by a material body, given their radically different natures? Contemporary attempts to address the Interaction Problem include interactionist dualism[72], Russellian monism/panpsychism[73, 74], emergentism[75], and hylomorphism[76]. While each offers interesting insights, Triunism's approach provides a more unified and physically grounded solution. Unlike Descartes' substance dualism[12], in which thought and consciousness were comprised of a non-material substance, Triunism asserts a materialist substance, M3, for thought

and consciousness. M3 is proposed to have the ability to preferentially direct the collapse of quantum states, thereby causally influencing the material M1 body. M3 also maintains memories and is aware of the senses of M1 through this subquantum linkage.

The Hard Problem of Consciousness (See Chalmers[77]): Why and how do physical or material processes produce subjective, qualitative experience (qualia, such as the felt redness of red or the painfulness of pain), rather than just functional or behavioral capacities? Physical descriptions explain the “easy” problems (attention, reporting) but seem to leave an explanatory gap for the intrinsic “what it’s like” aspect. Triunism partially addresses this problem since M3 is a distinct material with intrinsic properties suited to consciousness. Since M3 has extent and resides in the body, subjective experience is fundamental to its nature (rather than emergent from M1). The “knowing” of quantum states provides a bridge. However, Triunism does not fully explain why M3 has qualia (it posits rather than derives this), so the explanatory gap persists at a deeper level.

The Problem of Other Minds and Solipsism (See Nagel [78]): How do we know other people have minds/souls like ours? We infer from behavior, but direct access is private. Triunism does not directly solve the epistemological issue (we still infer other M3 entities from behavior and analogy). However, the shared aetherial ontology (M1/M2/M3 across individuals) and consistent interaction rules make other minds a natural expectation. Evidence for souls (as described in Section 10) bolsters this expectation.

The Mental Causation / Causal Exclusion Problem (See Kim[79]): Even if interaction occurs, how does the mental avoid being excluded or rendered redundant by the completeness of physical causation? (Related to but broader than the basic interaction problem.) Triunism addresses this problem. Preferential quantum collapse in M1 as directed by M3 allows for genuine downward causation without violating M1 laws (M3 selects among probabilities in a realist quantum mechanical framework). The specialized, limited interaction rules prevent over-determination or exclusion.

The Unity of Consciousness / Binding Problem: Why is experience unified into a single “self” rather than a bundle of disconnected sensations? How do disparate brain processes bind into one coherent perspective? Triunism addresses this problem. M3 has spatial extent and “oneness” as a cohesive material entity residing in the body. This provides a single substrate for binding, unlike distributed physical processes alone.

The Free Will and Determinism Problem: If the world (including the brain) is deterministic or random at the quantum level, where does genuine agent control and responsibility come from? Triunism explicitly addresses this problem via M3’s ability to enable preferential (chosen) quantum collapses in M1. This introduces agent causation within an otherwise probabilistic or deterministic M1 base.

The Personal Identity and Persistence Problem: What makes “you” the same person over time (despite changing body/brain states)? Does the self survive death or major disruptions? Triunism addresses this problem. The soul (M3) is the persistent core, with the brain serving as antenna and memory backup/copy. Damage or death impairs the M1 interface but not M3 itself. This supports continuity, afterlife implications, and explains phenomena like Alzheimer’s.

The Problem of Induction: How can we rationally justify generalizing from observed cases to unobserved ones (e.g., the sun rising tomorrow because it always has)? Past patterns do not logically guarantee future ones, yet science and reasoning rely on it. Triunism partially addresses

this problem. M1 is a physical realm following physical laws wherein generalizing from observed cases to unobserved ones is supported. However, since M3 is a material realm involving free will and choice, generalizing from observed cases to unobserved ones cannot be fully supported in M3.

The Problem of Evil / Suffering has already been addressed in section 10.

The Problem of Moral Realism vs. Anti-Realism: Do objective moral facts or values exist independently of human opinion or culture (realism), or are morals subjective, relative, or merely expressions of emotion/preference (anti-realism)? Triunism addresses this by rejecting both options, as Triunism includes a return to Christianity with morality defined through the teachings of Jesus Christ.

Triunism also addresses problems within the present physics paradigm:

The Problem of Instrumentalism and Mathematicization in Physics: Adopting an instrumentalist philosophy of “shut up and calculate” enables technological advancement, but it does not allow a true understanding of our world. Triunism addresses this problem by returning to metaphysics and physical modeling.

The Complexity Problem: Including color, the Standard Model contains over 60 particles, 19 free parameters, and a Lagrangian with over 150 terms (over 1000 if individual matrix elements are counted). Triunism addresses the complexity problem. Triunism includes a primary triune of space, time, and matter, and a weak secondary triune of M1 (commonly known matter), M2 (aetherial matter), and M3 (spiritual matter). M1 and M2 offer a full framework for observed physical data, deriving the fundamental equations of physics from a handful of starting postulates, two elementary particles (the aetherions) and five fields.

The Running Coupling Constant Problem: The status quo allows “constants” to change, making them dependent upon the energy of interaction. Triunism addresses this problem by retaining fixed proportionality constants within its derivations.

The Renormalization Problem: QED includes a procedure that replaces the infinities generated by the theory with finite values chosen to fit the data. Triunism partially addresses this problem by avoiding point-like particles in its formulation. However, and importantly, Triunism does not yet have an alternative formulation to replace QED.

The General Relativity Singularity Problem: General relativity produces its own infinities, called singularities, which occur when a large mass becomes sufficiently dense. Triunism partially addresses this problem through the saturation speculation[55], which proposes that the gravitational attraction saturates when masses become large. This proposal is shown to be consistent with observed data, but it is labeled as a speculation because the data is not, and perhaps cannot be, precisely obtained for extremely dense objects.

The Cosmological Constant Problem: The predicted value of the cosmological constant — theorized to arise from the zero-point energies of quantum fields — differs from the observed value by roughly 120 orders of magnitude. Triunism addresses this problem by proposing that particles are not excitations of fields, but rather, particles are bound states of freed aetherial quanta.

The Dark Matter Problem: Stellar orbit data are consistent with general relativity’s gravity only if some additional “dark” matter exists, but no direct observation of dark matter particles has been found. Triunism addresses this problem in its derivation of two field masses, a feature already

embedded in the theory. Dark Matter is found to be intrinsic; no ad hoc particles or ad hoc field tweaking is necessary.

The Problem of Incompatibility between Quantum Mechanics and General Relativity: Quantum Mechanics, the theory of the small, and general relativity, the theory of the large, are famously incompatible and treated separately. (General relativity does not appear in the Lagrangian of the Standard Model.) Triunism addresses this problem by deriving the gravitational formulas from a quantized aether; quantum mechanics is included at the very beginning.

The Bell's Theorem Problem (Entangled States): Quantum mechanics specifies that certain results are dependent upon a spatially extended wave function, but relativity is a point-like theory that limits locality to the speed of light. Bell's theorem tests show that the results are in violation of locality under the relativistic assumption. Triunism addresses this problem by returning to an absolute theory wherein there is no speed-of-light limit.

As seen from the above listing, Triunism addresses many long-running problems in both philosophy and physics, but it does not address them all. Triunism is a new foundation for physics and philosophy. Much work remains.

12. Triunism: Concluding Remarks.

Western philosophy began with the ancient Greeks and the teachings of Jesus Christ, eventually reaching a powerful synthesis in the work of Thomas Aquinas. During the Renaissance, new evidentiary data began to strain that synthesis. In the modern period, both science and philosophy responded with creative but increasingly complex frameworks. This creativity produced both theoretical advances and growing discordance, as science, philosophy, and religion each went their separate ways. The result is today's postmodern era, dominated by a nihilistic, monistic, materialistic, atheistic, relativist instrumentalism. Nietzsche's will-to-power has moved in to fill the vacuum. In this environment, Christianity struggles for relevance as it seeks to uphold its foundational moral teachings while remaining largely isolated from the presently ascendant currents in science and philosophy.

Yet despite the vast advance of new ideas in both science and philosophy, many long-standing problems remain, such as the problem of quantum entangled states, mental causation, the hard problem of consciousness, free will, and the incompatibility between quantum mechanics and general relativity. In this paper we have shown that Triunism's very parsimonious ontology (involving a primary triune of space, time and matter, with matter containing a secondary triune of M1/M2/M3) offers a promising path toward resolving or significantly advancing these issues.

Much remains to be done. The framework presented here is a beginning, not a finished product. Detailed quantitative work is still needed in areas such as nuclear forces, high-precision tests, and certain cosmological implications. Further philosophical and theological refinement will also be required as the ideas are stress-tested by others. Triunism is offered not as a completed system, but as a foundation upon which others may build.

By returning to the core philosophical pillars of the Thomistic synthesis — strong realism about things-in-themselves, an objective and intelligible order, the harmony of faith and reason, and a theistic framework — Triunism seeks to address persistent problems while remaining largely consistent with both present scientific knowledge and traditional Christian faith. Philosophy, science, and Christianity can once again be united under the pursuit of a single coherent truth.

References.

- [1] Nietzsche, Friedrich. *The Gay Science*. Translated by Walter Kaufmann. New York: Vintage Books, 1974 (original 1882).
- [2] Augustine of Hippo. *Confessions*. Translated by Henry Chadwick. Oxford: Oxford University Press, 1991 (original ~397–400).
- [3] Principe, Lawrence M. *The Secrets of Alchemy*. Chicago: University of Chicago Press, 2012. (See Chapter 2 on Arabic alchemy.)
- [4] Aquinas, Thomas. *Summa Theologiae*. Translated by Fathers of the English Dominican Province. New York: Benziger Brothers, 1947 (original 1265–1273).
- [5] William of Ockham. *Summa Logicae*. Translated by Michael J. Loux. South Bend, IN: St. Augustine's Press, 1974 (original ca. 1323).
- [6] Luther, Martin. “*Disputation on the Power and Efficacy of Indulgences*” (95 Theses). October 31, 1517. In *Luther's Works*, Vol. 31, edited by Harold J. Grimm. Philadelphia: Fortress Press, 1957.
- [7] Calvin, John. *Institutes of the Christian Religion*. Translated by Henry Beveridge. Grand Rapids, MI: Eerdmans, 1989 (original Latin edition 1559; first edition 1536).
- [8] Copernicus, Nicolaus. *De revolutionibus orbium coelestium (On the Revolutions of the Heavenly Spheres)*. Nuremberg, 1543. (Modern English translation: *On the Revolutions of the Heavenly Spheres*, translated by A. M. Duncan. London: David & Charles, 1976.)
- [9] Spinoza, Baruch. *Ethics*. Translated by Edwin Curley. Princeton: Princeton University Press, 1985 (original 1677).
- [10] Kepler, Johannes. *Astronomia Nova*. Prague, 1609. (Or *Harmonices Mundi*, 1619.)
- [11] Galileo Galilei. *Dialogue Concerning the Two Chief World Systems*. Translated by Stillman Drake. Berkeley: University of California Press, 1953 (original 1632).
- [12] Descartes, René. *Meditations on First Philosophy*. Translated by Donald Cress. Indianapolis: Hackett, 1993 (original 1641).
- [13] Newton, Isaac. *Philosophiæ Naturalis Principia Mathematica* (Mathematical Principles of Natural Philosophy). London, 1729.
- [14] Voltaire. *Candide*. Translated by Robert M. Adams. New York: Norton, 1991 (original 1759).
- [15] Diderot, Denis. *Encyclopédie* (editor, with Jean le Rond d'Alembert). Paris, 1751–1772.
- [16] Hume, David. *An Enquiry Concerning Human Understanding*. Edited by Eric Steinberg. Indianapolis: Hackett, 1977 (original 1748).
- [17] Berkeley, George. *A Treatise Concerning the Principles of Human Knowledge*. Edited by Jonathan Dancy. Oxford: Oxford University Press, 1998 (original 1710).
- [18] Kant, Immanuel. *Critique of Pure Reason*. Translated by Paul Guyer and Allen W. Wood. Cambridge: Cambridge University Press, 1998 (original 1781/1787).
- [19] Darwin, Charles. *On the Origin of Species by Means of Natural Selection*. London: John Murray, 1859.
- [20] Lagrange, Joseph-Louis. *Mécanique Analytique*. Paris, 1788.

- [21] Mendeleev, Dmitri. “*The Periodic Law of the Chemical Elements.*” Journal of the Russian Chemical Society (1869).
- [22] Maxwell, James Clerk. “*A Dynamical Theory of the Electromagnetic Field.*” Philosophical Transactions of the Royal Society of London 155 (1865): 459–512.
- [23] Foucault, Michel. *The Archaeology of Knowledge*. Translated by A. M. Sheridan Smith. New York: Pantheon Books, 1972 (original 1969).
- [24] Derrida, Jacques. *Of Grammatology*. Translated by Gayatri Chakravorty Spivak. Baltimore: Johns Hopkins University Press, 1976 (original 1967).
- [25] Lyotard, Jean-François. *The Postmodern Condition: A Report on Knowledge*. Translated by Geoff Bennington and Brian Massumi. Minneapolis: University of Minnesota Press, 1984 (original 1979).
- [26] Michelson, Albert A., and Edward W. Morley. “*On the Relative Motion of the Earth and the Luminiferous Ether.*” American Journal of Science 34 (1887): 333–345.
- [27] Lorentz, Hendrik A. “*Electromagnetic Phenomena in a System Moving with any Velocity Less Than That of Light.*” Proceedings of the Royal Netherlands Academy of Arts and Sciences 6 (1904): 809–831.
- [28] FitzGerald, George F. “*The Ether and the Earth’s Atmosphere.*” Science 13 (1889): 390.
- [29] Larmor, Joseph. “*A Dynamical Theory of the Electric and Luminiferous Medium.*” Philosophical Transactions of the Royal Society of London A 190 (1897).
- [30] Einstein, Albert. “*Zur Elektrodynamik bewegter Körper.*” Annalen der Physik 17 (1905): 891–921.
- [31] Einstein, Albert. “*Die Grundlage der allgemeinen Relativitätstheorie.*” Annalen der Physik 49 (1916): 769–822. (Submitted 1915.)
- [32] Dyson, Frank W., Arthur S. Eddington, and C. Davidson. “*A Determination of the Deflection of Light by the Sun’s Gravitational Field, from Observations Made at the Total Eclipse of May 29, 1919.*” Philosophical Transactions of the Royal Society A 220 (1920): 291–333.
- [33] Planck, Max. “*Zur Theorie des Gesetzes der Energieverteilung im Normalspectrum.*” Verhandlungen der Deutschen Physikalischen Gesellschaft 2 (1900): 237–245.
- [34] Schrödinger, Erwin. “*Quantisierung als Eigenwertproblem.*” Annalen der Physik 79 (1926): 361–376.
- [35] Heisenberg, Werner. “*Über quantentheoretische Umdeutung kinematischer und mechanischer Beziehungen.*” Zeitschrift für Physik 33 (1925): 879–893.
- [36] Dirac, Paul A. M. “*The Quantum Theory of the Electron.*” Proceedings of the Royal Society of London A 117 (1928): 610–624.
- [37] Noether, Emmy. “*Invariante Variationsprobleme.*” Nachrichten von der Gesellschaft der Wissenschaften zu Göttingen, Mathematisch-Physikalische Klasse (1918): 235–257.
- [38] Peskin, Michael E., and Daniel V. Schroeder. *An Introduction to Quantum Field Theory*. Boulder, CO: Westview Press, 1995.
- [39] Weinberg, Steven. *The Quantum Theory of Fields*, Vol. 1. Cambridge: Cambridge University Press, 1995.

- [40] Feynman, Richard P. “*Space-Time Approach to Quantum Electrodynamics.*” *Physical Review* 76 (1949): 769–789.
- [41] Schwinger, Julian. “*On Quantum-Electrodynamics and the Magnetic Moment of the Electron.*” *Physical Review* 73 (1948): 416–417.
- [42] Tomonaga, Sin-Itiro. “*On a Relativistically Invariant Formulation of the Quantum Theory of Wave Fields.*” *Progress of Theoretical Physics* 1 (1946): 27–42.
- [43] Dyson, Freeman J. “*The Radiation Theories of Tomonaga, Schwinger, and Feynman.*” *Physical Review* 75 (1949): 486–502.
- [44] Green, Michael B., John H. Schwarz, and Edward Witten. *Superstring Theory*, Vol. 1. Cambridge: Cambridge University Press, 1987.
- [45] Everett, Hugh III. “*Relative State Formulation of Quantum Mechanics.*” *Reviews of Modern Physics* 29 (1957): 454–462.
- [46] Tegmark, Max. “*The Mathematical Universe.*” *Foundations of Physics* 38 (2008): 101–150.
- [47] Berger, Peter L., and Thomas Luckmann. *The Social Construction of Reality*. New York: Anchor Books, 1966.
- [48] Dummett, Michael. *Truth and Other Enigmas*. Cambridge, MA: Harvard University Press, 1978.
- [49] Mach, Ernst. *The Science of Mechanics*. Translated by Thomas J. McCormack. Chicago: Open Court, 1902 (original 1883).
- [50] Einstein, Albert, Boris Podolsky, and Nathan Rosen. “*Can Quantum-Mechanical Description of Physical Reality Be Considered Complete?*” *Physical Review* 47 (1935): 777–780.
- [51] Bell, John S. “*On the Einstein Podolsky Rosen Paradox.*” *Physics Physique Fizika* 1 (1964): 195–200.
- [52] A. Aspect, J. Dalibard, and G. Roger, “*Experimental Test of Bell’s Inequalities Using Time-Varying Analyzers.*” *Physical Review Letters* 49, 1804–1807 (1982).
- [53] Guth, Alan H. *The Inflationary Universe*. Reading, MA: Addison-Wesley, 1997.
- [54] Penrose, Roger, and Stuart Hameroff. “*Consciousness in the Universe: A Review of the ‘Orch OR’ Theory.*” *Physics of Life Reviews* 11, no. 1 (2014): 39–78.
- [55] Larson, D. J. “*The Quantum Luminiferous Aether.*” *Physics Essays* 37 (2024): 9–30.
- [56] Shapiro, Irwin I. “*Fourth Test of General Relativity.*” *Physical Review Letters* 13 (1964): 789–791.
- [57] Larson, D. J. “*Understanding Quantum Mechanics.*” *Physics Essays* 37 (2024): 133–138.
- [58] Gell-Mann, Murray. “*A Schematic Model of Baryons and Mesons.*” *Physics Letters* 8 (1964): 214–215.
- [59] Zweig, George. “*An SU(3) Model for Strong Interaction Symmetry and Its Breaking.*” CERN Report 8182/TH.401 (1964).
- [60] Larson, D. J. “*The A-B-C Preon Model.*” *Physics Essays* 10 (1997): 27–34.
- [61] Larson, D. J. “*Additional Evidence and Predictions for the A-B-C Preon Model.*” *Physics Essays* 30 (2017): 347–355.

- [62] Larson, D. J. “*Aetherions, preons, and the aether: A unified theory of the presently known.*” *Physics Essays* 38 (2025): 173–176.
- [63] Craig, William Lane. *The Kalām Cosmological Argument*. London: Macmillan, 1979.
- [64] Plantinga, Alvin. *God, Freedom, and Evil*. Grand Rapids: Eerdmans, 1974.
- [65] Barnes, Luke A. “*The Fine-Tuning of the Universe for Intelligent Life.*” *Publications of the Astronomical Society of Australia* 29 (2012): 529–564.
- [66] Anselm of Canterbury. *Proslogion*. (See any standard translation, e.g., in *Anselm: Basic Writings*, translated by Thomas Williams. Hackett, 2007.)
- [67] Adams, Robert Merrihew. *Finite and Infinite Goods*. Oxford: Oxford University Press, 1999.
- [68] Schellenberg, J. L. *Divine Hiddenness and Human Reason*. Ithaca: Cornell University Press, 1993.
- [69] *The Holy Bible*, Genesis 1:1–31.
- [70] *The Holy Bible*, Joshua 10:12–14.
- [71] *The Holy Bible*, Genesis 7:11–8:19.
- [72] Popper, Karl R., and John C. Eccles. *The Self and Its Brain*. Berlin: Springer, 1977.
- [73] Russell, Bertrand. *The Analysis of Matter*. London: Kegan Paul, 1927.
- [74] Goff, Philip. “*Consciousness and Fundamental Reality.*” Oxford: Oxford University Press, 2017.
- [75] Broad, C. D. *The Mind and Its Place in Nature*. London: Kegan Paul, 1925.
- [76] Oderberg, David S. *Real Essentialism*. New York: Routledge, 2007.
- [77] Chalmers, David J. “*Facing Up to the Problem of Consciousness.*” *Journal of Consciousness Studies* 2, no. 3 (1995): 200–219.
- [78] Nagel, Thomas. “*What Is It Like to Be a Bat?*” *The Philosophical Review* 83, no. 4 (1974): 435–450.
- [79] Kim, Jaegwon. *Mind in a Physical World: An Essay on the Mind-Body Problem and Mental Causation*. Cambridge, MA: MIT Press, 1998.

Acknowledgement: Grok (built by xAI) was used for research and minor editing; the predominant amount of original wording, core ideas, ontology, and arguments are entirely the author’s.