

The Computational Unified Field Theory (CUFT) Challenges the Second Law of Thermodynamics

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Short Communication

ABSTRACT

The Computational Unified Field Theory (CUFT) has been empirically validated as a satisfactory 'Theory of Everything' (TOE) shown capable of resolving the principle contradiction between Relativity Theory (RT) and Quantum Mechanics (QM), explaining a series of unresolved 'Physical Conundrums' which cannot be explained by either of those Models, and based on its unique "critical-differential prediction" (differentiating it from both RT and QM predictions). This new CUFT advances an "A-Causal Computation" Paradigm which recognizes a new singular (higher-ordered) Universal Computational Principle that simultaneously computes all exhaustive spatial-pixels in the physical universe at every minimal time-point " c^2/h " comprising an extremely rapid series of 'Universal Simultaneous Computational Frames' (USCF's), thereby negating any "material-causal" physical relationships between any two (or more) exhaustive spatial-pixels found either in the same- or different- USCF's frames. Hence, the CUFT's new 'A-Causal Computation' Paradigm was shown to challenge the 'Big-Bang' Model, negate "Dark-Energy" and "Dark-Matter" as "superfluous" and is currently shown to also challenge the Second Law of Thermodynamics, based on its implicit assumption of such 'material-causal' relationships between the degree of Entropy (E_i) at a given USCF's frame ($USCF_n$) and an increased Entropy level (E_{i+n}) at a subsequent USCF's frame ($USCF_{n+j}$). Based on this 'A-Causal Computation' negation of any 'material-causal' physical relationships the CUFT's challenges both General Relativity and the Second Law of Thermodynamics, instead advocating that the evolution of the entire physical cosmos is singularly determined by the dynamics of this singular Universal Computational/Consciousness Principle.

KEYWORDS Quantum Mechanics, Dimensions, Thermodynamics, Intelligibility

INTRODUCTION

THE COMPUTATIONAL UNIFIED FIELD THEORY (CUFT)

Twenty-first Theoretical Physics finds itself at a major crisis, reminiscent of pre-Einstein's 1905 Paradigmatic Shift brought about by Relativity Theory: its two major theoretical pillars, namely: Relativity Theory (RT) and Quantum Mechanics (QM) [1,2] seem contradictory of each other and there exist a series of unresolved "Physical Conundrums" which cannot be explained by either of these Models, i.e., the most prominent being "Dark-Matter" and "Dark-Energy" which is assumed to account for up to 90% of all the mass and energy in the physical universe but yet cannot be detected empirically! Indeed, it has been previously shown that this state of Twenty-First Century Theoretical Physics complies with Kuhn's [3] basic criteria for the need for a Paradigmatic-Shift (in any given Scientific discipline) and that the newly discovered 'Computational Unified Field Theory' (CUFT) [4-24] satisfies his strict criteria for the validation of an appropriate 'New-Paradigm', i.e., the CUFT's 'A-Causal Computation' Paradigm: hence, what follows is a brief description of the Computational Unified Field Theory's resolution of the principle theoretical inconsistencies found between RT and QM, and its offering of a New 'A-Causal Computation' Paradigm which embeds- integrates- and transcends- the constraints of both Physical Models.

The primary theoretical inconsistency that exists between RT and QM is the fact that RT asserts a strict 'Speed of light Constraint' upon the transmission of any signal (or information) across space and time, whereas Quantum Mechanics' "Quantum-Entanglement" (empirically validated) phenomenon [25] indicates that two 'entangled-particles' can apparently affect each other "instantaneously"! The Computational Unified Field Theory (CUFT) discovered the existence of a singular higher-ordered Universal Consciousness Principle (represented by the Hebrew Letter "Yud": "י") which computes simultaneously all exhaustive spatial-pixels in the entire physical universe at every minimal time-point, e.g., " c^2/h " = 1.56-42 comprising an extremely rapid series of 'Universal Simultaneous Computational Frames' (USCF's) [6-9]! Moreover, according to this new 'A-Causal Computation' Paradigm of the CUFT, the four basic features of 'space', 'energy', 'mass' and 'time' are computed by this singular Universal Consciousness Principle based on its three 'Computational Dimensions' of 'Framework' (consisting of two levels: 'frame', and 'object'), Consistency (likewise: 'consistent' vs. 'inconsistent') and 'Locus' ('global' vs. 'Local'); Thus, the CUFT hypothesized that 'space' and 'energy' are computed by this Universal Consciousness Principle as the degree of 'frame'- 'consistent' vs. 'inconsistent' computational measures, and conversely that 'mass' and 'time' are computed by the UCP as a measure of the degree of 'object' – 'consistent' vs. 'inconsistent' measures. According to the CUFT's 'Universal Consciousness Principle' theoretical postulate all exhaustive spatial pixels in the entire physical universe are computed simultaneously by this UCP at every minimal time-point " c^2/h " = 1.56-42 "during" each of the USCF's frames, whereas between any two such consecutive USCF's frames this Universal Consciousness Principle solely exists, e.g., without the presences of any physical universe! The manner in which this new UCP simultaneous 'A-Causal Computation' of all spatial-pixels in the universe resolves this principle contradiction between RT and QM is based on its identification of a 'single-spatial-temporal' "particle" vs. 'multiple-spatial-temporal' "wave" computational measures – as embedded within this UCP's 'exhaustive-spatial-temporal' "USCF's" frame/s!

According to the UCP's 'A-Causal Computation' (new) Paradigm, the apparent theoretical inconsistency that exists between RT's 'Light-Speed Constraint' (for the transmission of any signal across space and time) and QM's 'Quantum-Entanglement' "instantaneous" effect between two 'entangled-particles' can be explained based on its discovery of the embedding of the "particle's" 'single spatial-temporal' measurement and "wave's" 'multiple spatial-temporal' measurement within the 'exhaustive spatial-temporal' measurement of the USCF's frame/s! This was explained through the UCP's simultaneous computation of all exhaustive spatial pixels in the physical universe, which therefore also includes to "equivalent-value points" alongside any given electromagnetic wave which correspond to the apparently "two-entangled particles" – hence in truth the "instantaneous determination" of both 'entangled particles' (complimentary) values, arises not from their "instantaneous-interaction", but rather from their "equivalent-values" across the same electromagnetic wave (and the "computational-exhaustiveness" of the two subatomic "complimentary-pairs" of 'space-energy' and 'mass-time' which comprise the two exhaustive computational levels of the Framework's Dimensions' 'frame': 'consistent' and 'inconsistent' values and 'object': 'consistent' and 'inconsistent' values)...

The second apparent theoretical inconsistency that seems to exist between RT and QM is their "positivistic" vs. "probabilistic" current characterization (respectively): I Relativity Theory every space-time or energy-mass value of any given Phenomenon is "positivistic", i.e., it possesses a definitive single value, whereas according to QM every subatomic event (or entity) possesses only "probabilistic" (complimentary) values; One of the key reasons for QM's 'probabilistic' characteristics is its postulate of the existence of the subatomic 'target's' "probability wave-function" which is assumed to "collapse" following its direct physical interaction with another subatomic 'probe' element – hence leading to the 'probabilistic' nature of any subatomic (target) event or entity, e.g., prior to the (assumed) "collapse of the target's probability wave-function" following its physical interaction with the probe element... But, based on the abovementioned new CUFT's 'A-Causal Computation' Paradigm which asserts that the entire physical universe, e.g., including all of its exhaustive spatial-pixels are computed simultaneously by the Universal Consciousness Principle (at every minimal time-point " c^2/h " = 1.56-42), then this new A-Causal Computation Paradigm negates the possibility of any such "material-causal" physical interaction between the subatomic 'probe' and 'target' elements which is assumed to "cause" the "collapse" of the probability wave function! Instead, the UCP's new 'A-Causal Paradigm' asserts that this UCP computes (and "cognizes") all exhaustive spatial-pixels in the entire physical universe which includes all 'single spatial-temporal' "particle" and 'multi spatial-temporal' "wave" measurements which are both embedded within any single or multiple USCF's exhaustive spatial-pixels' pool (at any minimal time-point/s)... Hence, the CUFT UCP's new 'A-Causal Computation Paradigm' was shown capable of resolving the principle theoretical inconsistency that seem to exist between RT and QM, and was further validated as a satisfactory 'Theory of Everything' (TOE) [26-28] based on its identification and empirical verification of one (out of three) of its unique "critical-differential predictions", which was different than the corresponding predictions of both RT and QM, namely: the 'Proton-Radius Puzzle' [29].

THE CUFT'S 'A-CAUSAL COMPUTATION' NEW PARADIGM

Therefore, a key element in the CUFT's new 'A-Causal Computation' Paradigm is its negation of the possibility of any "material-causal" physical relationship/s between any two (or more) exhaustive spatial pixels in the entire physical

universe, e.g., existing either in the same (minimal time-point) USCF's frame/s or indeed across any two different USCF's frames (due to the UCP's simultaneous computation of all exhaustive spatial-pixels in the entire physical universe at any minimal time-point USCF's frame/s and the lack of existence of a physical universe "in-between" any two subsequent USCF's frames); This new CUFT's 'A-Causal Computation Paradigm' in Physics was shown to possess far-reaching theoretical implications: since there cannot exist any 'material-causal' physical interactions between any two (or more) exhaustive spatial pixels across the entire physical universe, e.g., either at the relativistic or quantum levels, then this led to a fundamental revision- embedding- and transcendence of both of these Models within the exhaustive computational model of the CUFT: Instead of General Relativity's conception of the evolution of the physical universe "caused" by a dynamic 'material-causal' physical interaction between "massive objects" which "cause" a "curvature of space-time", and conversely this "curved space-time" "causes" these "massive objects to travel in particular pathways"; the CUFT's new 'A-Causal Computation' Paradigm asserts that the singular Universal Consciousness Principle simultaneously computes every exhaustive spatial-pixel in the entire physical universe at every minimal time-point USCF's frame – including each such exhaustive spatial-pixel's entire four associated physical features of 'space', 'time', 'energy' and 'mass'! Indeed, it is precisely due to this new UCP's negation of the very possibility of the existence of any 'material-causal' physical interactions between any two (or more) exhaustive spatial-pixels in the entire physical universe (e.g., either at the same- or different- USCF's frame/s) that the CUFT also negates the "Big-Bang" Theory as the "cause" for the origin of the cosmos, and of "Dark-Matter", "Dark-Energy" as the "propulsion-agents" for its empirically observed accelerated expansion! This is because once we accept the UCP's simultaneous 'A-Causal Computation' of all exhaustive spatial-pixels in the entire physical universe for any (single or multiple) USCF's frame/s and its consequent negation of the possibility of any 'material-causal' relationships between any two (or more) exhaustive spatial pixels within any such (single or multiple) USCF's frame/s, then this negates also the possibility of any "material-causal" sort of effect/s between a (purely hypothetical) "Dark-Matter" or "Dark-Energy" "causing" the accelerated expansion of the physical universe, or indeed of any hypothesized initial USCF's frame's Big-Bang' nuclear explosion "causing" the creation of matter, space, etc. and its expansion of the physical universe; As explained previously through the usage of a 'Cinematic-Film Metaphor', the Universal Consciousness Principle's simultaneous 'A-Causal Computation' extremely rapid (e.g., $c2/h = 1.56-42$) of the series of USCF's frames may be somewhat likened to the successive frames in a standard Cinematic-Film: Thus, for instance, in the same manner that we can compute the "velocity" of a "film-plane" based on the degree of displacement of that plane across successive film-frames, the CUFT defines the "energy" value of any spatial-pixel as a function of its degree of displacement across successive USCF's frames (e.g., as the UCP's computation of that spatial-pixel's "Object-Inconsistent" measure – and likewise for the other three 'physical features' of 'space', 'time' and 'mass' particular computational combinations of Object/Frame and Consistent/Inconsistent). Hence, this 'Cinematic-Film Metaphor' has also been utilized to demonstrate that in the same manner that one cannot claim that a picture of an "explosion" – depicted in the "first" frame "caused" the "shattering of planets or galaxies" in any of the film's subsequent frames (since there is no "physical interactions" between any of the spatial-pixels depicted in any of the film's frames); so also the UCP's simultaneous 'A-Causal Computation' of a 'Big-Bang' nuclear-explosion in the first (assumed) – cannot "cause" any effect of the formation of stars, galaxies, or their "expansion" in the "second", "third" or "Nth" frame! As a matter of fact the new UCP's simultaneous 'A-Causal Computation' of all exhaustive spatial-pixels in the entire physical universe at any minimal time-point USCF's frame/s – negates any sort of direct (or even indirect) physical interaction at any single or multiple USCF's frame, including the "reality" of the Big-Bang's nuclear-explosion itself, i.e., since all of its depicted spatial pixel's components were necessarily computed simultaneously by the UCP thereby precluding the possibility of any "nuclear-explosion" physical interaction between them! Instead, the "radical" (yet unavoidable) conclusion of the UCP's assertion regarding its simultaneous computation of all exhaustive spatial pixels in the entire physical universe at any minimal time-point USCF's frame/s is that the sole origin- sustenance- and evolution- of every such exhaustive spatial-pixel/s in the entire physical universe (at any single/multiple USCF's frame/s) is singularly computed by the Universal Consciousness Principle!

Thus, based on the CUFT UCP's new 'A-Causal Computation' Paradigm which negates the possibility of any 'material-causal' physical interactions between any two (or more) exhaustive spatial pixels in the entire physical universe (e.g., found either within the same- or different- USCF's frames); and based on the (previously outlined) 'Computational-Invariance Principle' asserting that only the UCP represents a 'Computationally-Invariant' principle that exists both "during" each USCF's frame/s (i.e., solely computing the four basic physical features of 'space', 'time', 'energy' and 'mass' associated with each exhaustive spatial-pixel/s) and solely exists "in-between" any two consecutive USCF's frames) may be considered as "computationally-invariant", whereas those four basic physical features of 'space', 'time', 'energy' and 'mass' are considered to be "computationally-variant" since they only exist "during" each USCF's frame/s (as computed singularly by the UCP) but not "in-between" any two consecutive USCF's frame/s; the entire conception of the physical universe was altered significantly: the universe was not "caused" by a 'Big-Bang' nuclear-explosion but is rather continuously being computed- "dissolved"- (e.g., "in-between" any two consecutive USCF's frame/s) evolved- (and transcended-) by the singularity of the UCP, i.e., both as computing an initial-USCF frame of a 'Big-Bang' nuclear-explosion and as computing- dissolving- and evolving every consecutive USCF's frame/s (in the "past", "present" and "future")! Likewise, it was shown that instead of the "non-existent" 'Dark-Matter' and 'Dark-Energy' (which represent

purely hypothetical concepts which could not be detected empirically) the CUFT's explains the accelerated expansion of the physical universe as arising from the UCP's increased addition of spatial-pixels with each consecutive USCF's frame/s! Thus, instead of Relativity's current conception of the physical universe evolving as a result of a dynamic interaction between 'massive-objects' "causing" a 'curvature of space-time' which (in return) 'determines the travelling-pathways of these massive objects' – the CUFT's 'A-Causal Computation' new Paradigm explains the origin- sustenance- and evolution- of the entire physical cosmos as solely and singularly produced by the UCP's continuous simultaneous computation of every exhaustive spatial pixel in the universe with every consecutive USCF's frames that this UCP produces (e.g., with this UCP solely existing "in-between" any two such consecutive USCF's frames – without the presence of any physical universe!) Likewise, at the Quantum level, instead of the current conception of the "collapse" of the subatomic 'target's' "probability wave-function" as "caused" by its direct physical interaction with a corresponding subatomic "probe" [1,2,30], the new 'A-Causal Computation' Paradigm asserts that the singular Universal Consciousness Principle computes simultaneously all exhaustive subatomic "single spatial-temporal particle", e.g., "probe" and "target" pixels as comprising the "multi spatial-temporal "wave" pixels, which comprise the broader (exhaustive) USCF's frame/s constituting the entire physical universe (at any given minimal time-point, $c^2/h = 1.56 \cdot 10^{-42}$)... Indeed, it was previously shown that all key relativistic and quantum features are integrated, embedded and transcended within the CUFT's singular 'Universal Computational Formula'.

THE UCP'S A-CAUSAL COMPUTATION NEGATION OF THE SECOND LAW OF THERMODYNAMICS (SLT)

Thus, a fundamental feature of the CUFT's new 'A-Causal Computation' Paradigm of 21st Century Theoretical Physics is its insistence upon the impossibility of the existence of any 'material-causal' physical relationship/s (e.g., at either quantum or relativistic levels, and occurring either on the same- or across different USCF's frame/s); One of the direct theoretical implications of this new 'A-Causal Computation' Paradigm of Physics is its negation of the "Second Law of Thermodynamics" (SLT)! This is because this SLT claims precisely such a 'material-causal' physical relationship between the passage of "time" and an "increase in the degree of Entropy" within any given Physical System (e.g., and by extension throughout the entire physical universe)... This may be represented either generally:

T ? Entr. {entr-1... entr-i}, such that $\text{entr-1} < \text{entr-i}$

Or, more specifically:

USCF-1{entr-1} ? ... USCF-i{entr-i} such that $\text{entr-1} < \text{entr-i}$

But, since as we've seen above (and previously) that any such 'material-causal' physical relationships are strictly negated by the CUFT's new 'A-Causal Computation' Paradigm, then this Second Law of Thermodynamics is challenged and negated by this new (empirically validated) Paradigm! This is because all of the specific spatial-pixels comprising any given Physical System that exist in any given USCF's frame/s dissolve "in-between" that given frame USCF-1 and any subsequent USCF-1 so that any of the four associated physical features (of space, time, energy and mass) – i.e., including their particularly entropy level in the first give frame (USCF-1) cannot affect the subsequent frames' entropic level (USCF-i) Moreover, even pertaining to the first given USCF-1 frame, as we've seen above the new 'A-Causal Computation' Paradigm negates the possibility of the existence of any (direct or indirect) 'material-causal' physical interactions between any of its exhaustive spatial-pixels so that there cannot exist any physical interactions between the constituents of the given Physical System (taking place in the first USCF frame which can bring about an increase in the entropic level in any subsequent frame)! Indeed, when we focus our analysis on the state of any Physical System "in-between" any two subsequent USCF's frames we find that the Second Law of Thermodynamics (SLT) simply "dissolves" during this phase, thereby negating the possibility of its existence across any two subsequent USCF's frames! This is because once again, for the SLT to operate there must exist an effect transferred across a series of USCF's frames wherein the level of entropy that exists in a given frame (within a given Physical System) "causes" an increase in the level of entropy in that System in subsequent USCF's frames: But, if as the CUFT asserts all exhaustive spatial-pixels existing within any given USCF's frame/s "dissolve" 'in-between' any two consecutive USCF's frames, e.g., including their associated physical features of 'space', 'time', 'energy' and 'space' and therefore also their "entropic value", then there cannot exist any transference of the SLT's stated "effect" of an increase in this 'entropic value' from any given USCF's frame (USCF-1) through the "in-between" state of the dissolution of all physical features (including the entropic value of the particular Physical System in that USCF-1 frame) to "cause" an increase in that System's 'entropic value' in any subsequent USCF-n frame/s; thereby negating the possibility of the existence of the SLT!

A second instance which indicates the negation of the SLT involves another unique theoretical postulate of the Computational Unified Field Theory (CUFT) namely: the 'Individual Consciousness Expansive Spectrum Hypothesis' (ICESH) [22-24] which posits the potential capacity of Individual Human Consciousness to function in a manner identical to the Universal Consciousness Principle, e.g., based on its "Expanded Individual Consciousness"; Briefly stated, this ICESH theoretical postulate posits that since there doesn't exist any difference between the Universal Consciousness

Principle and "Individual Consciousness" in one of its three states of Consciousness, i.e., in the "deep-sleep" state; and since according to the CUFT's (additional) 'Ontological Relativism' theoretical postulate there doesn't exist any valid ontological difference between the three states of 'Individual Human Consciousness' ('waking', 'dream' and 'deep-sleep'), then the ICESH postulate posits that it should be possible for an "expanded" Individual Human Consciousness to function in an equivalent manner to the Universal Consciousness Principle! This implies that just as the Universal Consciousness Principle computes- dissolves- reproduces- and evolves each exhaustive spatial pixel comprising the entire physical universe (at any minimal time-point USCF's frame); So, it may be possible for such an "expanded" Individual Human Consciousness to likewise produce- dissolve- or evolve- each exhaustive spatial pixel throughout the entire physical universe (at any given USCF's frame)! But this implies that if we are to take any given Physical System whose entropic level increases with time, and we record that System's exhaustive spatial pixels across a given series of USCF's frames, then according to the CUFT's (above mentioned) ICESH postulate it should be possible for such an "expanded" Individual Consciousness to (continuously) produce a series of USCF's frames whose particular spatial-electromagnetic values would replicate a reversed sequence of the given Physical System's ("increasing Entropy" order), thereby in effect causing a "decrease in entropy with time" - thus negating the SLT! Thus, we see that there exist two conditions in which the SLT is negated, e.g.: "in-between" any two consecutive USCF's frames, and in case an "expanded" Individual Human Consciousness is utilized to reverse the sequence of spatial-electromagnetic pixels values of a given Physical System (in which the entropic level seems to increase with time)...

THE UNIVERSAL CONSCIOUSNESS REALITY'S SUPRA-SPATIAL-TEMPORAL CHARACTERIZATIONS

The key point to be derived from the above mentioned principle negation of the scientific validity of the SLT is that based on the "dissolution" of the entire physical universe "in-between" any two consecutive USCF's frames – including the 'entropic values' of any exhaustive spatial pixels comprising any given 'Physical System' (e.g., as well as of the entire physical universe!); we obtain the previously asserted 'Supra-Spatial-Temporal' characterization of the "Universal Consciousness Reality":

Essentially, based on the 'Computational Invariance Principle' (e.g., somewhat associated with 'Ockham's Razor' general scientific principle) assertion that only the Universal Consciousness Principle may be regarded as "computationally invariant", i.e. Permanent (existing both "during" each USCF's frame/s as computing the four basic physical features of 'space', 'time', 'energy' and 'mass' associated with each exhaustive spatial pixel comprising the entire physical universe for each USCF's frame/s, and also solely existing "in-between" any two consecutive USCF's frames), whereas those four physical features may only be regarded as "computationally variant"; therefore the "Universal Consciousness Reality" theoretical postulate has been derived: This 'Universal Consciousness Reality' postulate evinced that there exists only one singular Universal Consciousness Reality which exists both "during" each (consecutive) USCF's frame/s and also solely exists "in-between" them - with the entire physical universe only comprising a manifestation of this singular reality!

Indeed, the discovery of this singular Universal Consciousness Reality in fact transcends the SLT (as well as our whole conception of the physical universe as a "solid-independent reality")! This is based on the (previous) characterization of this 'Universal Consciousness Reality' as a "Supra-Spatial-Temporal" reality, i.e., as a singular unitary reality which exists both "during" each USCF's frame/s and also "in-between" frames; Specifically this Supra-Spatial-Temporal Universal Consciousness Reality transcends space, time, energy and mass (e.g., as well as the entire physical cosmos) as it exists "in-between" the USCF's frame/s as well as embodies them as one singular reality! Moreover, precisely due to the abovementioned 'Computational Invariance Principle' and associated 'Universal Consciousness Reality' which assert that the entirety of the physical universe exists only as transient, impermanent manifestation of this singular Universal Consciousness Reality: its Supra-Spatial-Temporal characterization simply highlight the fact that this "transient-impermanent" physical universe does not possess any effect (or even "independent reality") relative to the singularity of this Universal Consciousness Reality... This is because (once again) there cannot be any transference of any "physical effect/s" 'in-between' USCF's frames, e.g., as the entire physical cosmos "dissolves" 'in-between' any two consecutive USCF's frames!)

Hence, it was recently postulated that the creation- sustenance- and evolution- of each exhaustive spatial pixel comprising the entire physical universe cannot be explained through any "material-causal" physical interaction between any (two or more) exhaustive spatial pixels within the universe - but only based on the intrinsic characteristics of this singular 'Supra-Spatial-Temporal Universal Consciousness Reality'; Indeed, in the last article (and previously) it was shown that there exist at least two such "intrinsic driving forces" attributed to this singular Universal Consciousness Reality', which are:

An intrinsic tendency towards exhibiting the continuous creative attribute of this Universal Consciousness Reality; i.e., manifesting, for instance, through its increased number of additional new spatial-pixels with every subsequent USCF's

frame - which was shown to explain the empirically observed accelerated expansion of the physical universe (instead of the "non-existent" "dark-energy", "dark-matter").

An intrinsic tendency of this singular Universal Consciousness Reality to manifest its "Inseparability Principle"! Based on the abovementioned equivalence of Individual Human Consciousness and the Universal Consciousness exhibited in the Deep-Sleep state (of Individual Consciousness), it was postulated that this singular Universal Consciousness Reality exhibits increasingly evolving forms of this 'Inseparability Principle', i.e., manifesting "inanimate", then "animate" : "plants", then "animals" then "Human Consciousness"; leading up to the full manifestation of this singular Universal Consciousness Reality through the human "Universal Consciousness"...

The "Dynamic-Equilibrium Principle": a third intrinsic characteristic of the operation of this singular (Supra-Spatial-Temporal) Universal Consciousness Reality is its previously delineated "Dynamic-Equilibrium": it was shown that based on the abovementioned Universal Consciousness Reality's 'Inseparability Principle' there exists a fundamental 'Dynamic-Equilibrium' (moral) principle which balances any infliction of "pain" (or "suffering") by any given (apparently "distinct") 'Individual Human Consciousness' upon another 'Individual Human Consciousness', e.g., by ensuring that the "inflicting" Individual Human Consciousness experiences the same degree of "suffering" as the "inflicted" Individual Human Consciousness in order to restore the basic underlying Oneness of this singular Universal Consciousness Reality!

THE UNIVERSAL CONSCIOUSNESS REALITY'S LAW, ORDER & INTELLIGIBILITY

Thus, we see that the origin- sustenance- and evolution- of the entire physical cosmos (e.g., comprising every exhaustive spatial-pixel within it at every minimal time-point USCF's frame/s) cannot be explained based on any relativistic or quantum [31,32] interaction (between any two or more exhaustive spatial-pixels found either within the same- or different- USCF's frames)! Instead, the recent discovery of the Universal Consciousness Reality's Supra-Spatial-Temporal Universal Consciousness Reality and its characterization as "Omni-present" and "Omniscient" regarding any of its exhaustive (Supra-Spatial-Temporal USCF's frame/s in the "past", "present" or "future") have led to the recognition that the creation- sustenance- and evolution- of the entire physical cosmos may only be explained based on those intrinsic features and characterizations of this Universal Consciousness Reality; As mentioned above, there are at least three (recently discovered) such characteristics of this Supra-Spatial-Temporal Universal Consciousness Reality's continuous evolution of the physical universe, i.e., its "accelerated-increase" of the number of spatial-pixels comprising each consecutive USCF's frame/s, its inherent 'Inseparability Principle' tendency towards exhibiting a gradually evolving: "inanimate", "animate: plants, animals, humans", and eventual human manifestation of "Universal Consciousness"; and its "Dynamic-Equilibrium" Principle asserting that any conscious infliction of "pain" (or 'suffering') by one Individual Human Consciousness upon another Individual Consciousness must necessarily bring about an equivalent infliction of 'pain' (or 'suffering') upon the inflicting Individual Consciousness (which is also due to the same 'Universal Consciousness Inseparability Principle' indicating the integral-wholeness of the singular Universal Consciousness Reality from which in truth all apparently 'Individual Human Consciousness' are not "separate"! Interestingly then, this new 'Omnipresent, Omniscient Supra-Spatial-Temporal Universal Consciousness Reality' is recognized as the sole reality constituting the entire physical cosmos: its origin- sustenance- and evolution- as well as transcending it altogether, e.g., clearly seen "in-between" any two consecutive USCF's frames (in which this singular Universal Consciousness Reality solely exists without the presence of any physical cosmos!) as well as through its triple (above) characterization which indicates that the origin- sustenance- and evolution- of the entire physical universe is not "caused" by any material-physical interactions (at either the quantum or relativistic levels) but rather instigated based on this singular Universal Consciousness Reality's intrinsic characteristics!

Indeed, what arises from the discovery of these three intrinsic-characteristics of this singular Universal Consciousness Reality, e.g.: its increasing of the number of spatial-pixels comprising each consecutive USCF's frame/s, manifestation of increasingly evolved (inanimate, animate and human) Universal Consciousness' (Inseparability) forms, and 'Dynamic-Equilibrium Principle's' (Inseparable-Moral balance between apparently "separate" Individual Human Consciousness) – is a new key Theoretical Postulate: the "Universal Consciousness Reality's: Law, Order and Intelligibility"! This new 'Law, Order and Intelligibility' Postulate recognizes that this singular Universal Consciousness Reality is characterized by its continuous manifestation of various intrinsic 'Computational Laws', its continuous 'Functional-Order' and its 'Human-Intelligibility'! Obviously, a full delineation of its three (newly discovered) features would necessitate further scientific exploration and research, but it is important to recognize this new (key) Theoretical Postulate of the Universal Consciousness Reality as governed- and operated- by 'Law, Order and Intelligibility' because it completely revises our contemporary "material-causal" understanding of the physical cosmos, e.g., as originated by a "Chance-driven" 'Big-Bang' nuclear explosion and is evolved through (increased) "Entropy-driven" processes: Instead of Relativity's 'Big-Bang' origination of the physical cosmos, and its continuous evolution based on (purely hypothetical) 'Dark-Matter', and 'Dark-Energy' which bring about an ever-growing degree of "Entropy"; this new 'Order, Law and Intelligibility' characterization prompts us to view the origination- sustenance- and evolution- of the entire physical universe merely as a manifestation of this 'Omnipresent, Omniscient, Orderly, Lawful and Intelligent' of this singular Universal Consciousness Reality! In that

sense, not only has the CUFT's new 'A-Causal Computation' Paradigm been shown to negate the 'Second Law of Thermodynamics' (SLT) (as shown above), but moreover, the very gist of this new (singular) Universal Consciousness Reality is recognized as manifesting the complete "opposite" of the SLT's "arbitrary" and "Entropy-driven" evolution of the physical cosmos, i.e., as merely a manifestation of the singular 'Omnipresent, Omniscient, Orderly, Lawful, Intelligent Supra-Spatial-Temporal' Universal Consciousness Reality!

An Eternal Ever-Present Ever-Conscious Universal Consciousness Reality!

Thus, the new conception that we obtain through the recognition of the singularity of the Universal Consciousness Reality as a Supra-Spatial-Temporal Omni-present, Omniscient, Law- & Order- Governed Intelligence greatly revises our current "material-causal" understanding of the physical universe in which we live: The physical universe was not "created" by a Big-Bang over 5 Billion years ago – rather it is continuously being "originated" at every minimal time-point ' $c2/h' = 1.56-42$ by the singular Universal Consciousness Reality! "In-between" every two such consecutive USCF's frame/s this physical universe "dissolves" back into the singularity of the Universal Consciousness Reality! As a matter of fact, based on the very 'Universal Consciousness Reality' theoretical postulate (and its associated Computational Invariance Principle) it was recognized that since every exhaustive spatial pixel comprising the entirety of the physical cosmos, e.g., and its four associated physical features of 'space', 'time', 'energy' and 'mass' only exist as "transient", "phenomenal" manifestations of this singular Universal Consciousness Reality (existing only "during" the USCF's frame/s but not "in-between" them) whereas this singular Universal Consciousness Reality exists permanently (unchanged) both "during" each USCF's frame/s (computing those four basic physical features at every exhaustive spatial-pixel throughout the universe) and also solely exists without any physical universe "in-between" any two consecutive USCF's frames, therefore it was recognized that truly there exists only this Universal Consciousness Reality, i.e., whereas the entire physical cosmos is only a manifestation of this singular Universal Consciousness Reality!

In that sense it may be stated that this singular Universal Consciousness Reality exists "unchanged" – all the time, and also beyond time: "Ever-Present" and "Eternally"! This is because in contrast to the physical universe that exists within the constraints of "time", "space" and "causality" – this singular 'Supra-Spatial-Temporal' Universal Consciousness Reality exists outside these constraints "constantly" and "eternally"! Perhaps in order to elucidate this Supra-Spatial-Temporal "Ever-Present, Eternal" nature of this Universal Consciousness Reality we can further develop the previously utilized 'Cinematic-Film Metaphor': If we were to focus our attention to the beam of light that enables the presentation of any cinematic-film projection, we could see that this beam of light exists "uninterruptedly" both "during" each film-frame (e.g., in fact solely enabling the perception of all colors and spatial-pixels within each film-frame!) and also solely existing "in-between" any two consecutive frames! Note that the beam of light exists "unchanged" – both "in-between" frames and also "during" its passage through the frames (e.g., to produce all visible spatial-pixels in each frame including all of their associated "physical features")... Moreover, despite the fact that the various objects and their movement, forms etc. appear to exist within the film presentation (as stated previously) none of their exhaustive spatial-pixels exist "in-between" two consecutive frames and even "during" each frame their sole existence depends on the passage of the light beam through them in order to produce their appearance in the film: in other words the only constant unchanged "reality" is that of the beam of light which appears by itself "in-between" frames and is appears within the forms "during" each frame... This Cinematic-Film Metaphor is almost equivalent to the Universal Consciousness Reality's sole unchanged existence – both "in-between" any two consecutive USCF's frames (where no physical universe exists apart from this singular Universal Consciousness Reality) and also "during" the frames wherein this Universal Consciousness Reality singularly computes every exhaustive spatial pixel comprising these rapid USCF's frames. (The only difference between this Cinematic Film Metaphor and the Universal Consciousness Reality's sole production- sustenance- and evolution- of every spatial pixel in the entire physical universe is that whereas in the Cinematic-Film Metaphor the frames (and their constituting spatial-pixels) seem to exist "independently" of the light of beam which projects them unto the screen, in the case of the Universal Consciousness Reality, the USCF's frames do not exist, (e.g., "dissolve" back into the Universal Consciousness Principle that computed them) "in-between" frames! This implies that even more so than in the Cinematic Film Metaphor, the singular reality which exists unchanged and continuously is the Universal Consciousness Reality – both "during" its sole production of each consecutive USCF's frame/s and of all of its exhaustive spatial-pixels comprising the entire physical universe, and also solely exists (without the presence of the physical universe) "in-between" any two consecutive USCF's frames! Therefore, from the perspective of this singular Universal Consciousness Reality it exists unchanged and continuously – "ever present" and "eternally", not constrained by "time", "space" or "causality", as a singular Supra-Spatial-Temporal Universal Consciousness Reality! The intriguing point to be further explored is that based on the previously discovered 'Universal Consciousness Inseparability Principle', e.g., which asserts the principle identity of our own apparent 'Individual Human Consciousness' with this 'Universal Consciousness Reality', we also possess the implicit potential to "expand" of 'Individual Consciousness' into this broader Universal Consciousness Reality, e.g., which is not limited by 'space', 'time', or 'causality'.

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