Universal existence: the dynamics resulting from the maximum states of contraction and expansion (the cosmology of vanishing dimensions)

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Abstract

Existence is the most fundamental and broad concept that can be used for definitions. Existences can be perceived as presences in partial transformation in space through interactions, attesting to the temporal dimension; constantly, due to variations in energy, interactions generate wear and tear. Based on this existential foundation, the Universe, which exists and contains everything, can be considered unique because it has nothing around it to interact with; thus, its existence or transformation, represented by the current expansion, is characterized only by the interactions of its components; since there is only wear and tear with interaction, the Universe as a whole is seen as evolving without wear and tear, maintaining its energy and mass in constant variation (continuous time). To clarify this perspective, the Standard Model, which considers 3D Space, is supplemented by the concepts of rest energy and vanishing dimensions. After considering and interweaving data and principles already presented in other studies, the addition or differentiation of this study is to describe a cause for the beginning of the current expansion of the Universe and to improve the understanding of the process of existential evolution.

Keywords: Existence, Universe, Dimension, Entropy, Energy.

I. Introduction

Using the concept of existence to complement the study of the evolution of the Universe can help in the search for solutions to the great questions.

There are various ideas and theories that attempt to explain what may have initiated or preceded the current expansion of the Universe; this is a topic of great interest in cosmology. However, some fields of study do not always allow access to direct observation or experimental testing.

Among the analyses guiding the new research into the possible cause of the expansion of the Universe are the following:

- String or the hint of a beginning through the interaction of branes [1] [2].
- An initial expansion due to a random quantum fluctuation or quantum instability [3].
- The interaction of universes in the existence of multiverses [4].

Despite being an important tool, even if it is well elaborated in the cited works, the use of mathematics is defining divergent solutions; the lack of observation of relationships between concepts that can be considered primordial, can be detrimental.

It's interesting to present a cause based on energies that are experienced and recognized, without the need to use concepts such as strings, branes, multiverses or certain instabilities.

For a differentiated study, data can be collected and interwoven with fundamental concepts or principles, providing constraints that lead to a single solution and guide future adjustments.

II. Principles, Data and Considerations

Although it is not possible to observe the entire Universe or all its evolutionary stages to formulate a complementary cosmological model or solution, it is possible to consider the following principles or points (based on data from other studies or analyses):

- The standard cosmological model [5] assumes, through observational data, that the Universe is in a state of accelerated expansion, so past states of greater contraction, or future states of more intense expansion, are well accepted.

- The Universe can be considered finite (Hawking, S.W.) [6] or have a limited amount of mass and energy (set); its maximum contraction is limited to the maximum lack of unoccupied space [there is no way to occupy more space (for contraction) if all possible spaces are already occupied (with 1D mass/energy in a lower dimension)].

- Space is the region that contains or is between masses; thus, Space (occupied with masses or not) has its presence or existence established only when it belongs to the Universe. Space is always considered non-existent outside the Universe. Nomenclature used: 3D Space represents volume, 2D Space represents area and 1D Space represents length.

- Mass deforms the 3D Space around it, bending it and affecting the trajectory of any motion. In a 2D dimension, the presence of mass / energy affects the surrounding space, which also orients possible trajectories, even without the gravitational effect in a 3D Space. On the other hand, in a 1D dimension, there is no space completely around the mass / energy, which means that the possible trajectory is unique.

- Energies represent states or components of the existing Universe [7].

- In a state that tends to maximum contraction, the concentration of energy is maximum in a past of vanished dimension [8] [9], so the Universe tends to be completely linearized (1D Space).

- Considering the past presence of 1D Space and the existence of 2D Space becomes a viable alternative, given the divergence between studies suggesting a flat universe ($\Omega \cong 1$) and others suggesting different properties [10].

  Data re-analysis (2005) showed that the particle jets produced by energetic cosmic rays were aligned closer to a plane than would be expected, which could imply a reduction in dimensions. The vanishing dimensions indicate that the third spatial dimension can be reduced.

  The lower dimensions have no 3D degrees of freedom, so are not susceptible to the propagation of three-dimensional gravitational waves. This fact represents a universal maximum frequency at which primordial waves (spatial 3D) can propagate, which marks the transition between dimensions.

- At maximum contraction (1D Space), the universal spin is zero, just as the primordial Universe (3D Space) does not spin. Thus, spins can also arise from the formation of 3D cosmic structures [derivatives from others with a presence originating in the fundamental state (Space 1D)].

- The current Universe is considered flattened because of the angular momentum that can be generated at unexpectedly large scales [11].

- Entropy depends on the degree of freedom and disorder configured [12]; thus, the type of spatial dimension (3D, 2D or 1D), which depends on the stage of expansion of the Universe, influences entropy.

- Entropy always increases in the current state of expansion of the Universe in three-dimensional Space. During the complete evolution of the Universe, with the extinction of 3D Space and the formation of 2D Space and later 1D Space, entropy decreases. Less space to occupy corresponds to greater order in the distribution of mass.

- The Universe (as a whole) is always the holder of any other presence or existence [13].

- Existence can be perceived as presence in partial transformation, varying or exchanging energies, through interactions related to motion in Space, representing the Time dimension.

  What defines existential continuity after a transformation is the permanence of some functional characteristic (physical or reactive to the environment or both). Thus, even in constant transformation, the Universe can still be identified as the holder of all existence.

  What distinguishes existences are different functional characteristics (physical or reactive to the environment or both) or presence in more than one space at the same time.

- The expanding Universe, because it contains the totality of all existences, is unique in the sense that it doesn't suffer friction or wear and tear, that is, it doesn't exchange energy with anything external.

- The energy derived from friction, or the wear and tear of internal interactions is converted and generates presences contained in environments that are always part of the Universe.

Based on the above considerations, it may be useful to develop a model for the extreme states of evolution of the Universe that respects the primordial characteristic of existence and describes the cause of the beginning of the current expansion without external influence.

III. The extreme states of universal evolution

Prior to the expansive beginning, the entire Universe must have been in a state of rest, with no effective motion or zero kinetic energy; there is no characterization of an expansive beginning if there is already effective motion in a universal state of minimum space.

The entire Universe will be in a state of rest when it reaches its maximum expansion; there is no characterization of an expansive end when there is still effective motion.

With the current expansion of the Universe, the state of maximum mass dissipation is expected with the future presence of the minimum possible amount of 1D masses (two masses), which conceptually can only be separated by the maximum 1D Space in the state of maximum (not complete) expansion; thus, a presence or existence for a state of transformation is preserved (the Universe, being the holder of everything and having nothing to interact with, does not suffer wear and tear, always preserving components that make a constant variation of energy possible).

Considering that the Universe, in extreme states of its evolution, has the presence of 1D rest masses, no atom, no molecule, no chemical, thermal, electric or electromagnetic energy can be present, so the internal energies that can exist initially after the beginning of the motion are the fundamental ones: gravitational potential (Epg) and kinetic energy (Ek). When considered a binding energy, or by reference, (Epg) can be negative (– Epg) and have its maximum value equal to zero (Epg = 0) in 1D Space (dimension).

Neither a future complete expansion nor a complete contraction is possible in extreme states of rest; with the lack of curvature of 1D Space with 1D masses, the (– Epg) already reaches a maximum null value (Epg = 0) with null Ek (– Epg + Ek = 0) before all 1D mass is completely dissipated with a major expansion or before all unoccupied space completely disappears with a major contraction.

A state of maximum expansion that has the same amount of 1D mass of the state of maximum contraction would not be possible, because the expanded state would reach rest (Ek= 0) with masses forming 3D Space (in 3D Space) which would be curvable: [– Epg (≠ 0)].

The state of maximum contraction of the Universe is characterized as a state of constitution opposite to the state of maximum expansion, i.e. instead of the presence of two minimum 1D masses maximally separated in a presence of 1D Space, the presence of two minimum unoccupied spaces (1D) between a particle with mass and two extended masses (1D) at rest represents the Universe.

Thus, the Universe is described as having begun its expansion from a 1D Space dimension in an instantaneously static state, evolving through a 2D Space dimension based on the study of vanishing dimensions and reaching 3D Space with the formation of 3D mass.

According to the Standard Model, after inflation, there is the presence of the current accelerated expansion. With this, the dissipation of mass will be considered, with space progressing to a 2D spatial state and then to 1D.

IV. Dynamics resulting from the maximum states of contraction and expansion

In extreme states of maximum contraction or maximum expansion of the Universe, the kinetic energy (EK) is zero (instantaneous rest states), and the gravitational potential energy referring to the existing 1D masses (– Epg) has its maximum value equal to zero (Epg = 0) in 1D Space.

However, at the extremes of evolution, the existing composition has a rest energy (E_0) equivalent to the gravitational potential energy of an adjacent and previous state, because the absence of spatial curvature or motion in extreme parts of the Universe is not instantaneously perceived everywhere, due to the presence of unoccupied space between the masses, which causes Ek to vary to a value that is no longer zero, together with the variation of Epg (– Epg + Ek = 0), initiating and intensifying motion with the continuity of transformation or existence.

Considering that relativity provides solutions for the description of the 3D Space Universe and based on the previous presence of vanishing dimensions [8] [9], with the addition of the rest state, some results for the field equations can be obtained.

Relativistic calculations for one-dimensional Space [14]:

$$R_{\mu\nu} - \tfrac{1}{2} R\, g_{\mu\nu} + \Lambda\, g_{\mu\nu} = (8\pi G / c^4)\, T_{\mu\nu} \qquad (1)$$

The Riemann tensor can be expressed [in (1+1) dimensions] as

$$R^{y}{}_{\nu\alpha\beta} = R / 2\; g^{\gamma\mu} (g_{\mu\alpha} g_{\nu\beta} - g_{\mu\beta} g_{\nu\alpha}) \qquad [14]$$

(R = curvature scalar and $g_{\mu\nu}$ = metric tensor)

With (1D Space +1D Time) dimensions:

$(8\pi G / c^4) T_{\mu\nu} = 0$ [14]

$R_{\mu\nu} - \frac{R}{2} g_{\mu\nu} = 0$ [14]

$\Lambda g_{\mu\nu} = 0$ [14]

(The energy–momentum tensor ($T_{\mu\nu}$) vanishes).

With $\Lambda g_{\mu\nu} = 0$, the energy and pressure density are equal to zero, before all mass dissipates in a complete expansion (presence 1D masses at momentary resting status), or before all unoccupied space between the masses disappears in a complete contraction.

However, the results of general relativity for the extreme states of evolution of the Universe lose their relevance for determining a dynamic continuity or the cause for the beginning of the expansion, when it is not considered that these states are not perceived instantaneously by the entire Universe, i.e. there is a part that still maintains the characteristics of a non-one dimensional space; the motion of the range signal of this state is not considered.

The presence of space between 1D masses in the extreme states of evolution of the Universe certifies the maintenance of the existence which, by a conceptual definition, excludes any other possibility.

After reaching the extreme states of evolution, the signal of the reach of the lack of motion that propagates in the Universe also represents the signal of the reach of the lack of curvature.

V. Representing the 1D masses and their respective energies in extreme states

Maximum Expansion State of the Universe

The extreme state of maximum expansion is defined by the following points:

- The 1D Space has a minimum occupancy.
- With a future maximum mass dissipation, there will be two minimum 1D masses separated by the maximum 1D space in the state of maximum expansion.
- Ek is zero; Spin is zero.

Maximum contraction state of the Universe

The extreme state of maximum contraction is defined by the following points:

- The presence of maximum 1D space is occupied maximally by the presence of 1D masses.
- State opposite to maximum expansion; instead of the presence of two 1D masses separated by maximum space, there is the presence of two spaces that divide the existing mass into three parts.
- Ek is zero; Spin is zero.
- If a state of complete contraction were possible, there would be no space between 1D masses that would configure a motion, or existence would never take place.

Conventions:

The amount of mass in an infeasible universe (of total contraction or without spaces) can be represented by two maximum masses ($2 \times M_0$) and one minimum mass ($M_0 - m_0$), where $M_0 > m_0$ and ($M_0 - m_0$) has a value as close to zero as possible.

Thus, the Universe in its state of maximum contraction (not total or with the presence of spaces) is composed of a maximum mass (m_0), a minimum space, a minimum mass ($M_0 - m_0$), another minimum space and another maximum mass (m_0).

In this state of maximum contraction, a maximum mass (m_0) corresponds to a maximum mass (M_0) of a non-viable universe (of total contraction) subtracted from an amount of minimum mass ($M_0 - m_0$), which corresponds to a massive absence to represent the presence of a minimum space [$M_0 - (M_0 - m_0) = m_0$ + minimum space].

Thus, the energy corresponding to a state of maximum, but not complete, contraction of the Universe would be:

$$E_{0\,(m\,c)} = [M_0 + M_0 + (M_0 - m_0) - 2\,(M_0 - m_0)] \times c^2$$

$$E_{0\,(m\,c)} = [m_0 + m_0 + (M_0 - m_0)] \times c^2$$

$$E_{0\,(m\,c)} = (M_0 + m_0) \times c^2$$

In a state of maximum expansion of the Universe, where there will be the presence of two separate 1D minimum masses, there will be the corresponding rest mass energy:

$$E_{0\,(me)} = [2\,(M_0 - m_0)] \times c^2$$

As $E_{0\ (mc)} > E_{0\ (me)}$, the variation in energy (VE) that the Universe undergoes in its expansion process corresponds to the variation in mass in this process, i.e. the energy that corresponds to the difference between the 1D mass present at its maximum contraction and the mass present at its maximum expansion.

$$VE = E_{0\ (m\ c)} - E_{0\ (m\ e)} = (M_0 + m_0) \times c^2 - [2\ (M_0 - m_0)] \times c^2$$

$$VE = [(m_0 + m_0) - (M_0 - m_0)] \times c^2$$

The fact that the Universe is the holder of all existence, or has nothing to interact with, never suffering wear and tear, confirms the need for the presence of space between the masses in their extreme states of evolution, for continuous transformation, and emphasizes that any variation in mass or energy during expansion is reverted, to a permanent variation in space, time dimension and existence.

The energy difference between a Universe that is maximally contracted or expanded in its extreme states and an (unfeasible) Universe that is completely contracted or expanded is what represents the presence of space between 1D masses and what allows Universal motion after static states.

By analyzing the extreme states of the Universe, taking into account the existence of space between the 1D masses or the rest energy, the only possible solution is obtained to allow a variation of energy to promote the continuity of the motion or transformation that represents the current existence of the Universe; in this way the concept of cause and effect is respected, excluding the idea that a variation of energy can come from nothing.

VI. The Complete Evolution with Fundamental energies

A simplified evolution (sketch) based on the fundamental energies (potential and kinetic), parallel to the action of all the other energies, is presented to guide the development of new models.

The dark energy that exists is related to the increase in the Universe spin effect due to the increase in the amount 3D mass, making the current expansion accelerated. The Dark matter is represented by the presence of lower dimensional masses.

Linearity is not visually perceptible, the following sketch is a parallel study with a parallel evolution guided by centrifugation, gravity, and motion, illustrating the evolution of the Universe's energy to make the meaning of M_0, m_0 and (M_0 – m_0) more understandable.

Figs. 1–2 illustrate that any contraction and expansion, although intense, cannot be total; revealing that the Universe is always transforming, i.e., once existing, always existing.

Figure 1. Universe (1D maximum contraction, 2D, 3D, inflation, 2D, 1D or maximum expansion)

Expansion: Space created by the interaction, groupings, motion, or dissipation of masses (1D, 2D, or 3D). Expanding 3D Space: (1D and 2D) masses to 3D masses, except in the post-accelerated expansion phase

Maximum Contraction:

Part A (1D) **Part B (1D)**

The spaces (empties)

Ek= 0; Spin = 0. Motion = 0.

Minimum unoccupied Spaces (between masses).

Presence of Part A (mo), Part B (mo), particle (Mo – mo) and two spaces (1D) empties; (Ek = 0); The fact that the signal of complete linearity (with Epg and Ek variation) does not instantaneously reach the entire Universe (presence of unoccupied spaces between the presence of 1D masses) represents that there is a part that still maintains the characteristics of a non-one dimensional space ou means that E_0 become non-zero, equivalent to Epg and Ek varying to a non-zero value and the return of the motion.

Expansive process begins.

1D Space expanding to 2D:

Part A Part B

The expansive beginning [11] (with a curved path).

One extremity of the Universe does not instantly realize that the other extremity has reached 1D space with 1D mass).

Angular momentum (L) = radius (r) x mass (m) x angular velocity (w).

1D spatial dimension to 2D Space = the formation of an edge = approximation of the parts A and B [radius (r) decreases and (w) increases] = Ek (spin) increases.

2D Space

spin

From the 1D spatial dimension (presence maximum 1D mass) to the 2D spatial dimension = Expansion (2D space formed).

Groupings in the edge (Presence of the central particle) begin to form particles with 2D masses (filling the interior of the 2D Space = the contraction of the edge of the existing 2D Universe).

With the amount of 2D masses increasing to the maximum, the 2D mass concentration increases (in 2D Space), the spin increases.

With greater concentration, in the central region, forming the first particle (3D mass) = beginning of the 3D Space dimension.

"Field" Fundamental point (3D)

Our 3D Space Universe began as a 3D particle (point), 1D and 2D masses (Field). Beginning later Planck era (3D Space).

The first 3D mass formation depends on the non-flattening of the Space = mass (energy) concentration = mass 3D ($E_0 = m_0 \times c^2$) = "excitation" of the field from 2D to 3D by curvature 3D central space.

With the first 3D Space curvature and more groupings, the amount of 1D and 2D masses (particles) decrease, while the amount of 3D masses (of 3D internal space) increases (generating or increasing 3D Space = form or increase surface of the ellipsoid that represents 3D Space Universe.

2D Space to 3D Space = mass (as a whole) approaches, radius (r) decreases, and (w) increases = Ek (spin) increases.

2D Space

3D Space

(Surface of the ellipsoid)

The formation of 3D masses from 2D masses by all 2D Space almost instantaneously forms the surface of the ellipsoid (3D Space) = Inflation.

After inflation the interaction between the 1D and 2D masses happens more slowly, making the expansion less accelerated. When the 3D Universe was denser, massive bodies tended to form more quickly.

If 1D and 2D masses interact and form 3D masses that generate 3D Space, so that the radius (r) continues to decrease, the velocity or speed (w) continues to increase; the current expansion of the universe will continue to accelerate.

1D and 2D masses coming to an end

Decelerated expansion: (EK) decreased by increasing radius (r)).

Under these conditions, the spin of the Universe and its centrifugal effect decrease, causing the expansion to decelerate.

Studies propose a flat or closed Universe [10]. Extreme linear states of space and masses are definers of the continuity of evolution. Dark (matter and energy) are related to the agglomerations of 1D and 2D mass particles. Dark energy = mass energy (1D and 2D) to 3D, increasing the (w) or spin effect (centrifugation); thus, they can accelerate the expansion of our Universe (3D Space dimension).

After the maximum formation of 3D masses in ample 3D Space, the expansion begins to slow down. With the 3D mass tending to dissipate (expansion), EK, and the intensity of the spin decreases.

Future of expansion: Spatial Universe, flat (2D).

(Expanding Disk) (Spin)

The 3D spatial dimension becomes 2D Space (Disk); spin and EK decrease.

With less and less mass. For maximum expansion, the smallest masses (1D particles) arise: 2 (Mo – mo) separated by presence of the maximum space.

Linear Space

$(M_0 - m_0)$ **$(M_0 - m_0)$**

The Universe does not continue to expand (the presence of two minimum particles with mass (1D) preserves some presence); the Universe can never be completely homogeneous (empty space between masses).

Figure 2. Universe (1D maximum expansion, 2D, 3D, 2D, 1D maximum contraction)

In the state of maximum expansion:
Ek = 0 with 1D Space. The fact that the signal of complete 1D space does not reach the entire Universe instantaneously (presence of the unoccupied space between the 1D masses) means that E_0 become non-zero, and as the masses approach (the motion returns).

The only possible motion that corresponds to an increase in EK (in this case) is a contraction.

Contraction: masses can be naturally generated. Ek begins to increase with presence of two minimum 1D masses (in 1D Space) beginning their motion; 1D Spatial dimension [with minimum (1D mass)] to 2D Spatial dimension = contraction.

The beginning of the motion promoting the existence of a curved way in 2D spatial formation.

. (v) (v) .
$(M_0 - m_0)$ **$(M_0 - m_0)$**

Just as the Relativity of time varies according to the speed and gravity, the spatial dimension is guided by energies variations Epg and Ek.

Limited variation in time relativity ↔ mass (or energy concentration) limited in 1D, 2D or 3D Space ↔ limited contraction and expansion.

When v tends to c, the only way to continue the process and decrease EK, is with the presence of more 1D mass [mass and energy (Einstein equation)], which happens more easily in 2D Space due to the lack of Space (3D).

. (v ≅ c) (v ≅ c) .

When more 1D mass become present, the velocity (v) of the masses (at the extremities) decreases. While the evolution continues, (v) is restored. Thus, more 1D masses become present and 2D masses are formed in 2D Space.

(Spin)  (2D Space)

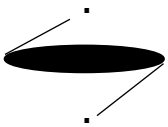
Total amount of mass (1D and 2D) increase. Since the possible amount of mass to be generated has not yet been reached, the continuation of the contraction will produce 3D masses that will maximally occupy a 3D Space.
[2D Space that expands generating 3D Space (with a constant amount of total mass) = expansion, but 2D Space that contracts, increasing the amount of total mass, generating 3D mass and 3D Space (occupied) = contraction (relationship between mass and energy proposed by Einstein's equation). When 3D Space, with a constant amount of mass, form lower dimensional Space = contraction].
When the formation of 3D masses ends, the 3D state is one of intense contraction or concentration; due to a centrifugal effect of spin; the contraction process makes the Universe reach the shape of a 2D flat disk + two particles (1D masses).

3D and 2D to 1D Space*:*
Flattened Universe with a constant 3D amount of mass, with increasing Epg and (r), and decreasing Ek, (w), and spin:

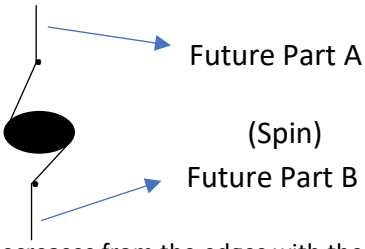
reaching the state formed by disk + two (1D masses) particles:

This incomplete maximum contraction will consist of a fully compressed disc, between two particles (symmetry); The spaces represent the presence of potential energy [maximum mass of the disk between the two (1D mass particles].

Ek has not maximum decreased; thus, there is still the Ek or the spin to continue the contraction until it reaches 1D Space.



The spin (centrifugation) allows the existence of space for motion only between the edge of the disk and the particles (shape of the surface of a double cone). This shape (by equilibrium) does not allow the two particles to approach in the direction of the borda do disk. In its maximum state of contraction, the disk (without internal spaces) loses its internal gravitational effect, the contraction continues (spin) to 1D Spatial dimension.



The disk decreases from the edges with the spin, and through the unoccupied space (shape space: double conical surface). The homogeneous distribution of mass from the disk to the future parts (A and B) is defined by spin and entropy.

The spaces (empties)

Part A **Part B**

Consecutive new expansion:
Through linearization, the Universe returns to a spatial dimension (1D); the state of maximum contraction reappears. The parts present are separated by necessary (unoccupied) central spaces and a minimum particle (1D mass). Expansion resumes.

Entropy tends to become smaller and smaller as the Universe approaches a state of 1D Space.

Typically, the most accepted studies are based on strong evidence; the quality of evidence is graded at various levels, from the highest, with possible experimental tests, to the lowest, with qualitative descriptive and correlational research.

Even if the study does not allow access to direct observation or experimental tests, conceptual analysis can be useful in some areas, even with less evidence.

Relevant answers can be found indirectly in situations where the solution is limited to being unique by the existing conditions.

When considering the Universe as the holder of all existence and always existing (in transformation), by probability, any of its current components, after its maximum wear and tear, will sooner or later be reconstituted somewhere and at some time; to visualize this perspective, it is necessary to identify the minimum characteristics or essences that can define the existence in question.

No transformation can disfigure our individuality when the physical body is present to interact with the environment; when the physical presence is removed, the loss of the characteristics that define us seems certain, which means that any reaction, interaction, information processing or memory maintenance seems impossible.

From this perspective, it seems that there will be nothing left to characterize our existential continuity in another body, space, and time.

However, the sum of all the actions and reactions created at every instant (time) by interaction with the environment, is unique to each one, and can be defining of our essence; Thus, an existential continuity can at least be characterized by the return of a successive evolution after a time.

From this perspective, all existence is relatively permanent, but only the Universe, which suffers no external friction, has a continuous existence in a "Universal" time.

All interactions that have happened, are happening, and will happen, however minimal they may be in the face of the Universe, are necessary for each tiny part of evolution and depend on the existence of each tiny component at any given time.

From this point of view, the interactions that define the evolution of the Universe require the presence or action of components that are unique because of their characteristics or because of their specific reaction to interactions with the environment.

In a Universe where everything is energetically related, it is not reasonable to believe that some people begin their existence with better characteristics or in more favorable environments than others, randomly.

Although the perspective presented above does not originate from clear evidence, in a field where no perspective can be obtained, a slight clue can already represent a relevant result.

When there is no evidence of an existential continuity, individuality tends to prevail for many, and the realization that everyone is a fraction of a changing environment (not always directly manipulated) is left aside.

Inequalities are admissible, when on merit; however, in an excessively unfavorable conditions, efforts and ability generate few results for the majority, promoting a disorderly development, with destruction of much of the limited natural resources [15].

Without perspective, many people are corrupted, conflicts are generated by differences, leading to wars, inequality, poverty and hunger [16]. Although the existence of God can be relativized, is essential to many and thus motivates actions and interactions that constitute it as a transforming agent, there are still those who see religion as an instrument of manipulation.

A perspective, however minimal, that we are part of a whole and that our actions define the condition of our existential continuity in universal terms, can make us aware of the consequences of each act in a defining environment. The more environments favorable to a good existence, the greater the chance of a prosperous continuity in a continuous time in the Universe.

It is important to recognize the importance of making every moment of this existence useful, because precautionary actions, but also cooperation, can become the path to the consistent evolution of environments, improving the conditions of existence of any civilization and representing one of the most relevant results that can be discovered.

VII. Conclusion

As the evolution of the Universe is only observable when there is already expansive motion, and a complete analysis by means of relativistic mathematics presents inconclusive results, it was only possible to present a complementary model to the standard model by means of restrictions derived from concepts.

The consideration of an analysis of the Universe (3D Space, observable and mathematically described) that begins its expansion at a given instant and will end it, must be done in conjunction with an analysis of a generating Universe (1D Space) to this model of complete evolution.

Considering existence as any (characterizable) presence in constant transformation, the Universe is defined as existing. Even constantly changing, or even presenting itself in different dimensions of Space, what characterizes the essence of the Universe, making it permanent, is the fact that it is always the holder of any existence.

The state of extreme Universal rest transforming into motion or existential continuity is prior to zero-point energy or any quantum fluctuation (Casimir Effect), due to the momentary absence of relative motion (1D Space).

This article describes how motion can arise from resting universal states.

With the generation of a centrifugal effect associated with gravity, a flattened state tends to be formed with curved edges. A linear state is considered at maximum expansion.

The need for quantum gravity to characterize the origin of universal motion becomes unnecessary, since all energies can only result from the fundamental ones: Epg and Ek.

Experiments with neutrinos (2020) show the possible asymmetry in the formation of matter and antimatter [17] [18].

Symmetry may occur only in the contraction + expansion set.

Entropy tends to become smaller and smaller as the Universe approaches a state of 1D Space.

The model presented was able to clarify why the Universe begins its spin with the beginning of the expansion.

Contractions and expansions are limited, but permanent in continuous cycles.

Being in permanent transformation, by probability, with the continuity of the dimension of time or variation of the spatial dimension, any constituent of the Universe always has its essence reconfigured.

This approach respects the Ockham's razor perspective and the principle of parsimony. The best explanation should assume the fewest number of premises [19].

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