TALES and LEGENDS of the COSMOS

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# **THE GREAT ILLUSION**

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#### Hang-up You don't have time to read?

To respond to your curiosity, I would like to give you a summary on one of the themes. These few lines briefly describe the two ways of understanding the origin and genesis of our Universe as imagined in this reconstitution/fiction:

#### 1. Coming from a non-physical observer (all theoretical hypothesis) who would therefore make no reference to any physical environment, the discourse is abstract:

The singular Big-bang starts by "filling" with energy a virtual space outside of time.

This space contains two equally virtual dimensions but contrasting symmetries (see chap.VIII).

An entanglement causes the initial kinetic energy in its extreme frequencies to mutate into potential energy and the initial kinetic antienergy to mutate into potential antienergy. These decouples reveal a "mismatch" which means that these two indissociated dimensions remain unimproved. By configuring in potential mode, this kinetic energy will, in each of the 2 dimensions in opposite symmetry, form "knots" of energy. Unlocalized, these will group the first particles together, concentrating more and more potential energy.

The process that gathers energy without loss will "empty" the virtual space. This "depression" is going to communicate, in a way, the potential energy points, not localized. At the end of the day (although we have to ignore the notion of time), all of these nodes of potential energy will be reduced to one, in which the opposite two-dimensional symmetry will be returned to "square one". The "vacant" space will disappear without any consideration of any past event. A new virtual space is then filled with kinetic energy (we might say it fills the vacuum left). This inexhaustible energy of a multiverse Cosmos, has no reality outside the concept of a two-dimensional Universe. This cycle of the Universe without a physical reality is perpetuated beyond time, without even gravity or expansion.

These two concepts are the vision of an observer inherent in Space-Time.

# 2. For the physical observer we are, and in the light of observations and feelings, his version seems already more accessible to us:

Our Universe only begins, after the Big-bang, with the first entanglements of primordial energy waves. Photons in their highest frequencies will diffuse and entangle in the form of particles not directly observable. This marks the beginning of time and the opening of space. We are talking about a twodimensional space/time that will fill up with particles for one and antiparticulates for the other. These particles will form the material in which the observer is located. This process of decoupling energy from matter will weaken as photons disperse and lose intensity. The material comes together in the form of stellar bodies. Increasingly dense, these structures of atoms and molecules are becoming more and more unifying, until they become all super-massive black.

The critical density threshold of these super-massive black holes will eventually be reached, resulting in the final collapse of a space/time vacuum. Bundled material and antimatter will annihilate and generate a second generation Big-bang. The loop is closed.

In our reality of space and matter, this physical unifying phenomenon represents the gravitational effect. On the other hand, seen as accelerated, expansion translates the liberation of space by matter. It then becomes necessary by relativizing convention by fixing a unit of measure to space/time; it will be the invariant velocity of light for each observer but relative, reported at the "age" of the Universe (an age defined by the level of expansion observed and the assumed effect of gravitation on time).

For further development, you can continue or read me about: <u>http://cosmosgrandeillusion.over-blog.com/2018/07/tales-and-legends-of-the-cosmos.html</u>

#### Foreword

Above all consideration,

It should be noted that this representation of the world around us is only a great open bet.... on the foundations of a universe that surpasses us.

To try to explain why this one is there is a whole other matter.

This reflection is used to describe in common terms what certain scientific theories and hypotheses, which inspired this trial, apply to demonstrate. Understanding and simplifying ideas that use particularly abstract concepts and mathematical formulations, which are too tight, is not simple. Going beyond that can be a certain predisposition to speculation.

For the sake of personal convenience and for the sake of clarity, there is a fairly sober reference to mathematical data and nuclear physics.

Black holes, dark matter, dark energy, unfinished unification theory, universe beyond the visible.... Is everything really so obscure?

Nothing can be taken for granted on such a broad and complex subject, and this thought, which would be exhaustive, may seem relatively dissenting.

Nevertheless, it is a relatively personal and spiritual response to certain questions. It dismisses out of hand any philosophical consideration.

This probably not enough developed book invites controversy and offers an original approach to the Universe in the continuity of current knowledge, in an unusual light.

It is also a way of reviving a debate that is far removed from the concerns that make life every day.

But no doubt, our priorities will have to evolve, as our living conditions change in a society that is more open, critical and curious, but still less equal.

You have however, to admit, a few obstacles to this evolution, if only the inability to move faster than new attitudes and technologies allow.

It is hoped that pollution and over-exploitation of our planet's unequally shared resources, due in large part to uncontrolled overcrowding, will make us aware of the fragile nature of the unknown world that hosts us. Some Common Places in Titles I and II of this presentation and a number of basic concepts have no other justification than to facilitate the layout of ideas that are sometimes not obvious to develop. The main thrust of this reflection would be to bring together certain proven, but not always convergent, advances and theories.

The direct style, however it may be, does not dress anything that can be received as truth or certainty.

Logic is the path to understanding. It shows us that there cannot be several realities. But sometimes this logic takes a back-door approach that can be avoided by a first approach. As a result, many questions are still waiting for answers.

It will often be about forces, particles, dimensions; all things qualified as virtual.

The <u>virtual</u> evoked in these lines, does not exist in our reality which is a materialized world to which we are bound in body and spirit. The terms to talk about it have yet to be coined. So our ideas have to refer to the palpable and the feeling. It will therefore be necessary;

- to do *parallels or comparisons (that appear purple)* to describe what is virtual, or to avoid getting bogged down in the abstract.
- using, where necessary, the**terms**" put on **between quotation marks**, when they are not really appropriate.

In cosmology, man is readily regarded as a mere observer. It means forgetting that it is the result of everything that has preceded it in the Universe it occupies. It is not only in this Universe; it represents the history of the country. Of course, his limited field of vision and the lack of sustainability justify his incorrigible amnesia. But a recent and ever more vivid awareness seems to awaken memories. . But are these memories or fantasies?

<u>Take note:</u> <u>Red ecrit: 12 key ideas</u> which are repeated, in the form of a summary, in the last pages (see pp. 86-93).

The Chapter VIII on Anti-matter goes beyond the "beaten-ways" of astrophysics and provides light that would almost warrant it being discussed beforehand.

# I <u>The starting point for this "existential" reflection</u>

(A preamble with a few clichés)

To give a dimension to something is to compare it to something else, usually smaller or larger. The same is true for the assessment of the duration of one event versus another.

Reduced to the concepts of infinitely small or infinitely large, this relativity shows its limits. Note also applies to an event in the reference to time if one considers a past without a beginning and a future endless.

This means that the unpredictable sequence of events in a causal logic, resulting in uncertainty in any spatial location, and excluding any formal duration assessment.

We would come to almost to doubt the reality as we see it!

Nevertheless, since it rejects any reference to the supernatural, the mind develops its own capacity to seek answers to the great metaphysical question: How do we understand this raison d'être, which leads us to wonder more specifically about our origin?

Or in a more pragmatic way: What does this material that we are made of represent and that shapes our visible universe?

But how can we comprehend in substance a reality that may seem largely inaccessible to our form of thought? Shouldn't our intellect be disconnected from the human condition with its intuitive logic, built on feeling? This illogical approach seems difficult to envisage, and it is now thought that such a subject justifies a dialectic of its own abstract and of the tools that remain to be invented. We will therefore do so with the means at hand.

# II <u>The Universe's metaphysics in search of answers</u>

(Where advances sometimes displace questions)

Humanity is constantly evolving, seeking the reason for an environment that it is trying, not without some success, to manipulate for its own benefit. For a long time, the earth was placed at the centre of everything. And in order to explain his presence, his origin and his reassurance of his future, man imagined a supreme Being which he desired in his image without really being able to represent himself. Convenient subterfuge, especially for those who want to govern and control a group that adheres to it!

In the whole history of humanity, what religion does not equate with obscurantism, enslavement when it is not perverse? Yet these beliefs, which are based on superstitions and mystifications, continue to affect many judgments and behaviours. They claim to explain or obscure what we cannot understand!

Fortunately, man sometimes comes to ask himself relevant questions suggested by experience, science, technical progress and perhaps a more open method of thinking. He then discovers a distant universe beyond the stars and at the same time probes the infinitely small matter surrounding it, of which it is made.

So the planet Earth is no longer the focal point of a "world" to discover. Despite the reluctance and taboo of religious myths that invariably refrain the development of knowledge, man has become capable of representing our solar system and then the host galaxy. He realizes that this galaxy is nothing more than dust in a huge cloud of galaxies that are shrinking faster and faster like a myriad of soap bubbles on each other. This is the latest prospective scientific representation of our discernable Universe.

It is recognized that its expansion is accelerating exponentially. Thus, one can envisage a time in which it represented only a "point" in a space to be occupied. Here seems to stop our ability to imagine further and to explain a supposed original Big-bang.

But what is the point of stopping on such a good path and not claiming an infinite universe like ours and other disconcerting things at first glance? It would be a way out of a self-indulgence that makes so much sense for the human race, which would see itself at the centre of everything.

It would also allow us to make some assumptions.

Let us now look at how to go further in this decompressing vision of the Universe, which would free us from so much prejudice and confinement.

## III <u>The Universe Plays Hide – Hide</u> (A Big Game in Search of Partners)

Does entropy, which characterizes the intensity of phenomena in astrophysics, cause more and more disorder, or on the contrary, does it reflect the search, in a more or less random way, for a certain sequence and balance preferred to chance and confusion? It seems that the answer, developed here, accepts both points of view. It ignores many of the probabilities already envisaged, but which did not make it possible to reconcile a logic that was supposed to be stripped from the outset, with scientific advances that were considered to be properly assimilated. This response, presented in the form of a bet, seeks to bring together apparently unconcilable theories in a unified model.

We see our environment as space-time, where electromagnetic forces mix, strong and weak interactions, and body gravitation. In short, a universe that is rather hostile to us and leaves us puzzled about the essential: its beginning and its end, if any. Our vision of the Universe is essentially satisfactory to us. But the representation we have, is it not— simplistic and reductionist?

Let us imagine that the universe in the broadest sense, the one that is inaccessible to us, is itself formed as a "local" Universe of close configuration to the one we occupy. Let us now consider that this universe of the Universe that we will resume under the term of Multiverse Cosmos is essentially nothing else, that two "latent forces" of "symmetrical and inverted" natures likely to be, as described below, in the form of Space-time. It should be noted that these two forces have no physical reality that is considered separately and can only be involved by confronting their opposing symmetries. This would cause these virtual forces to neutralize themselves without destroying themselves, since they are bound to "reintegrate" the Multiverse Cosmos.. We can draw a parallel with +X and -X, which cancel themselves in arithmetic, without totally excluding in this reflection the result of +X added to -X is different from zero. It is this paradox that would be the basis of our lived reality.

This means that conversely these same potential forces in opposite symmetry could be distinguished from one another in an event that we assume is the point of creation of our Universe (see Chap). VI).

To explain this idea of "latent forces" of symmetrical and inverted natures, undiscovered, let us choose the worst example that is permitted, the virtual and antinomic notions of paradise and hell.

These two mystical concepts are overlapping and do not represent anything concrete. Paradise and hell are by definition in total opposition but are supposed to be part of an indivisible whole, inaccessible to our condition.

Let us now forget this relationship with the divine which finds in this parallel its only justification.

With this assumption of the two "virtual forces", it must be acknowledged that our Universe born of this singularity is seen above all as a space occupied by a force revealed in the form of waves/particles (seemingly the choice of the observer) of a single symmetry and in a context of irreversible time.This notion of irreversibility leads one to believe that what is done cannot be undone (if not exceptionally, under the statistical law based on probabilities) in the same strictly reverse process. But why wouldn't it be through some sort of loop process that would bring it back to where it started?

Nevertheless, these 2 symmetric "forces" of natures, diced as they manifest themselves in the form of waves/particles (which makes up our perceptible space/time), are meant to "coexist" not to be in direct interaction.

Based on this definition and using, for lack of better, terms that are not precisely adequate, we could define the Multiverse Cosmos in several ways, depending on the observer's perspective:

- A "virtual content" without a container, "latent" energy of "unquantifiable" intensity, with no revealed mass, no revealed symmetry, not localized (therefore, no space occupancy as we see it), and no interaction (therefore no relation to time). This leads to the absence of wavelength/corpuscle duality, this peculiarity that characterizes Space-time.
- A "concept" used as a cosmological equilibrium, which can be described as a continuum of fractures and reconstructions of a symmetry, not recognised outside Space-time. This continuum has no measurable reality within multi-stakeholder Cosmos to which it confers "virtual" legitimacy.

• The Cosmos multiverse can also, as we will see later, be defined as confrontations (Big-Bangs) without numbers involving opposite symmetrical Universe binomies.

The Multiverse Cosmos does not occupy space. It cannot therefore be confused with what we call the quantum field or field of forces, which refer to the occupied space, which is characteristic of every Universe.

Fields of force are the space where we exercise more or less intensively what we consider to be the four core forces.

Our eyes make us discover a reality that is unique to us. But this interpretation of the Cosmos conceals an unobservable, totally virtual entity. This term is often used in the language of scientists, especially when talking about electrons and quantum particles that can change their status. It responds to the difficulty of locating in space, or of designing the volatility of these same particles when they appear to move without borrowing time.

The multiverse Cosmos is not concerned with quantum mechanics or general relativity. Nuclear, electromagnetic and gravitational interactions are peculiarities of Space-time closed on itself.

We cannot conceive of a beginning in the Universe, if we cannot imagine an end for it. More than a never-ending story, a closed-loop scenario would be fully modelled and accessible to our intellect. Like mythology, Phoenix is born of its remnants.

But here we need a detonator and also an exceptional loophole (see Chapter VI). It could be this stellar monster that is a black hole that doesn't really have any colour and would "open a door" to a new Space-Time (unless it's the same).

A black hole is like an unfathomable one. Gratation is at its peak. When its visible surface or more precisely its sphere of accretion is not saturated, it has nothing to reject and any "evaporation" phenomenon is suspended. All that is irreversibly captured below the accretion disc cannot escape. All the "information" that crosses this horizon is confused. They will be reconstructed differently through a phenomenon of extreme violence; a second-generation Big-bang (see chap. VI).

There is every indication that it is not within our reach to penetrate the heart of a black hole. It does not appear that it is more possible to discover the secret of what is hidden in the depths of the smallest constituent of matter behind its ambiguous waveform/particle. Everything seems to be pitted against a super-massive black hole with no accretion disc, the singularity of the Big-bang - mass, kinetic energy, temperature and brightness. However, what will be developed further on may lead to bringing them together. In a somewhat theatrical staging, we would see all the black holes in our Universe disappear from the front of the scene, to reappear on the opposite side of the curtain on the embryonic form of quantum singularity; the Big-bang. The problem of a necessary symmetry; Universe/Anti-Universe will be discussed later (see chap. VIII).

Without retreat as much as opening, we often think we are too confined in our physiological condition to imagine beyond what our ability to observe allows.

But let us try to counter it by developing point by point, this bet of a theory, which would be global, on the basis of a Multiverse Cosmos.

# IV The Universe guilty of speeding

(But is there a violation, if they are unknown physical laws?)

For an assumed resting particle, it is recognized that: E=mc2.. This formula involves:

- that matter and energy are closely linked in various forms
- that the speed of light (photons) would be a space-time constant that could not be violated by any particle, while accepting
- that time is a parameter without an absolute value, and that allows for relativization of the changes that affect any form of energy (see chap). XVI and XX).

The energy (E) drained by any observer and the gravitational effects (m) that affect it, each observer has its own notion of time (c). Einstein's equation C2 = E/m is not violated but light velocity (c) cannot be considered an absolute "invariant" constant.

Also, could energy that lacks mass, such as an excessively high frequency photon, not prove to be without space and time constraints? This would be a consistent corollary for a multiverse Cosmos without spatial representation.

This possibility can be seen as an interpretation of some scientifically proven theses. Indeed, who can say that the image we have of our closed Universe (communicating only on itself and presuming to have been fully contained in the singularity of its origin), can be extended to an analogous understanding of the multiverse Cosmos?

All of the following are part of this reverse symmetry latent force logic, being accepted that:

- Any space-time that translates a break in this symmetry representing <u>Cosmic Balance</u>, has no history of the <u>Multiverse Cosmos</u>.
- Cosmic Balance suggests a <u>Virtual energy</u>, no mass, no revealed symmetry. This "empty" approach differs from the idea of **absence** content, which generally refers to an environment that may contain potential content.

### V <u>The Universe Plays Balls</u>

#### (An endless game on a court with uncharted contours)

To think that our Universe was born of nothing, to suggest that there was nothing before. But this is not necessarily in contradiction with an interminable succession and a multitude of Universes, circumscribed like ours, probably somewhat different in their developments.

Before going any further, it is necessary to recall these singular objects, as unfathomable as the smaller "constituents".assumed the dematerialisation" of matter, the ultimate destiny of which is black holes.

What could make us think that they are both at the origin of our Universe and its end?

Black holes, within the same Universe, can merge as they meet. Then they become more massive, but fewer. While not the most spectacular, this phenomenon of merging black holes is one of the most successful in a universe. Because of the extreme density of the masses facing it, it changes the space-time that houses it at the local level in a unique way. Without disrupting the cosmological equilibrium, it comes to our attention through a very high-energy, so-called gravitational waveform, which travels through space-time without affecting the material encountered. who is does not have sufficient density.

Uneasy to detect, black holes in our Universe are certainly much more numerous than listed and of very small sizes such as unsuspected masses.

It is possible to represent the contents of an advanced super-massive black hole as rather homogeneous, uniform and devoid of atoms and particles in their original diversity. In a way, a singular Astral body, clogged in appearance, bulimic, electromagnetic wave frequency-free, and deprived of these oscillations inherent in the material. Similar to concrete, which substitutes for a mixture of water, sand, gravels, lime and other additives by making it homogeneous (although this image is imperfectly appropriate, if only in terms of density).

At this advanced stage, any phenomenon of "evaporation" or radiation for a black hole has ceased, marking the near disappearance of "Hawking radiation". Black holes no longer emit thermal radiation because the accretion disc, when not fed, has disappeared. This accretion disc was the source of these radiation emissions. But this subversive interpretation of Stephen Hawking's theory takes into account the expansion at a futuristic stage of a cooled Universe and this is apparently not the situation of the Universe we occupy. Principles of equivalence and preservation of information are no longer applicable to super-massive black holes (SMBH) with no significant activity. Gravitational and inertial forces are confused. The accretion disc (rather, it should be called a sphere that is quite cluttered on its equator) is then reduced to its simplest expression. What we call the accretion disc marks the limit beyond which photons (the fastest suspected virtual particles) cannot escape the gravitational effect of a black hole in a motion perpendicular to its radius. But this limit differs according to the angle of approach of the photons. It also varies according to the mass and velocity of any other particle or stellar body with a lower velocity than protons.

This "cloak" of accretion is not cold. This explains the radiation from a black hole that is still "fed". With these gamma radiation and material emissions, a black hole sort of drains the overflow. This will no longer make sense for a SMBH to be deprived of its accretion disc in a cooled Universe.

The thesis subsequently developed is to impute black holes, the singular event, which is the generator of the Universe, and is repeated under the term Big-bang.

In what way? Based on the idea that Each Big-bang "locally awakens" potentially symmetrical "latent" virtual forces, prefiguring the energymaterial/anti-matter combination.. The existence of this Anti-matter is theoretically established even though it is very difficult for us to portray it through rare fugitive antiparticules induced. This symmetry is distinct from the polarity attributed to particles, which contributes to the balance within atoms. Anti-energy is defined as the reverse, the reflection, the opposite, at the same time with the same opposite symmetry that we are familiar with. Energy and anti-energy that "occupy" unsuspected as described below, space/time is an intelligible transposition of the virtual latent forces that define the **Multiverse Cosmos.** 

The use of this idea of breaking down a symmetry of forces, creating a legitimate space-time like this, the persistent presence of matter and its energy equivalence.

In this process, we should see overall a scarcity of diffuse matter as well as a galloping demographic of black holes. However, the question does not really arise if one accepts that the notion of filling or density for the multiverse Cosmos remains a view of the mind. Furthermore, the following about the fate of a Universe makes the question irrelevant.

# VI <u>Confrontation or rallying</u>?

(In any case, it doesn't change anything "at the end")

My understanding of the history of the Universe has evolved and led me to consider several scenarios successively, reinforcing my conviction that the third hypothesis, retained, cannot be definitive. Without any real interest in the final scenario, the first two, repeated for memory, lacked some coherence. Let us consider that these are only steps in a thought exercise.

<u>1<sup>to</sup> scenarionot retained: The confrontation of two black holes.</u> A hypothesis of opposing symmetrical spaces/time

Once upon a time there were two super-massive black holes in search of a sister soul ...

These two super-massive black holes, the extreme concentration of energy "absorbed" in the form of waves and particles, are unmatched by those we can or believe to see from our insignificant planet of observation. Now let us suppose that they are the product of a Universe of the same dimension, of opposite symmetries and lacking any direct interaction between them. May these two black holes hit each other head on after they have stuffed at what has formed them and what may have been on their long road; the violence of shock is extreme. In a certain configuration, space-time is then likely to open (Big-bang). This phenomenon, which is repeated endlessly, does not in fact have any exceptional character and provides a certain definition of Multiverse Cosmos.

It can be assumed that these so-called black stars must exceed a certain "priming" mass to trigger such a singularity. Before reaching this critical mass, they would probably be forced, without more, to partly annihilate themselves in these +/- confrontations. The dominant black hole, the remnant of this conflictual encounter, may later merge with an identical symmetrical black hole until it reaches its critical mass, if that is the case.

These extremely dense bodies, which are no longer "fed", will continue their journey, moving back the limits of their space-time, until they encounter the super-massive black hole from another unidimensional opposite symmetrical universe.

The super-massive black holes involved, contrasting symmetries, are annihilated in the confrontation. The resulting singularity (Big-bang) will exclude their authors from their original Universe by generating a new Space-Time. Perhaps the difference, more or less marked in the masses of the two black holes confronted, is important in the violence of this process and in determining the symmetry of the future Universe.

In this regard, nothing says more than from the same synergy, two spacetimes of opposite symmetries cannot develop. In this case, this a combination of energies, without a revealed mass, would immediately take two different "directions" (the EPR paradox is the same as the parallel universe theory based on this same concept of plurality of the Universe). These 2 opposite symmetrical space-times ignore and "position" themselves without time or space constraints. This interpretation of the EPR paradox, could also more simply translate the emergence in a "same time", of the Universe and of the Antiuniverse assumed without shared history. This is reminiscent of the tunneling effect for particles that appear to appear and disappear without being able to determine the route of their movement. At the subatomic scale, when an electron often referred to as a virtual particle (because it is not observable with certainty) encounters an equally virtual antielectron, both turn into pure energy, which we consider to be the energy of the vacuum, symptomatic of space-time. This suggests that this "quantum void" would generate, seemingly randomly, electrons and antielectrons that would in turn annihilate before reborn.

To put it more concretely, one could compare this Big-bang in comparison to a known electrical phenomenon, proportionally and without the notion of duration:

- Two electrodes (*a black hole + and a black hole -*) that are close together and powered by a battery (*The Multiverse Cosmos*)
- Battery capacity is at the *"infinite size" of the Cosmos* and its intensity commensurate with the *"innumerable quantity" of Universe* + *and* –
- At the point of contact, electrodes (*the 2 black holes*) create an electric arc (*maintained by their opposing symmetrical masses*)
- Electrodes are destroyed, resulting in ionization (*start of the Big-bang*)
- Electrons released from the arc are then randomly redistributed in a large flash (*birth of a new space-time and a symmetrical space-time, not localable to each other*)

This stops the parallel because the battery has not yet discharged and the electrodes will reconstruct *(second generation black holes)*. We could compare the multiverse Cosmos to a clutter of conductors in "perpetual short circuits". An "environment" in which any event must be considered too

ephemeral to have a measurable reality outside the space-time that contains it.

Paradoxically, it is this lack of time and space that would allow these conjunctions of opposite symmetric black holes in the Multiverse Cosmos

**Rebuttal of this first scenario**: Too complex and not convincing. A certain principle of exclusion or indetermination (Heisenberg) is that 2 particles cannot simultaneously occupy *the same space*. No doubt, the same is true of the Universes, who could not then share a common "space" needed for this confrontation, in a multiverse Cosmos without a spatial dimension. It could also be said that they cannot exist in *same time* in this same Cosmos since it also has no temporal reference. On the other hand, if we can speak of an intimate conviction specific to this theme of the Universe, the preference (consideration, one can no longer be subjective) would be for the second hypothesis, that of a collapse of black holes.

### 2 th Scenarionot retained The collapse of a black hole. Still assuming symmetrical spaces/time

Once upon a time it was a black hole, stumbled over itself.

There is another way to understand this end of thermal activity in a Universe. It is to decree that it is black holes and everything that structures matter that is contracting more and more, not longer distances. The space-time ratio would vary proportionately to the "age" of the Universe; more and more space illusions, for less and less time. The illusion is preserved by giving the impression that these super-massive black holes on the horizon of Space-Time have reached supraluminic speeds. If this speed was several times the speed of light (e), it would mean that we would no longer be able to receive any information from this ever-unabservable horizon. This idea will be repeated afterwards.

So far nothing much different from 1<sup>to</sup> scenario. Unless we exclude the impossibility of black holes being able to exceed a critical level of density and mass with impunity. Their gravitational kinetic moment is likely also a determining factor in this critical value. This limit to their collapse could cause them to implode in a cataclysm that could bring them closer to a supernova without regard for scale.

Each of these implosions would generate a second-generation Big-bang giving birth to a Universe. The idea of a new Universe that would be of opposite symmetry (like a costume given upside down after being removed) is appealing because it ideally allows for alternating Universe and anti-Universe, respecting the fundamental principle of balancing in alternation and multitude.

The image that could be associated with this would be a baldruche ball that would blow out of the air and regroup after turning upside down.

The Cosmos would thus be a succession without a number of Big-Bangs alternating their symmetry with each new generation of Space/time. This interpretation of the programmed evolution of a cooled Universe then dispenses encounters between black holes originating in the opposite symmetrical Universe.

**<u>Rebuttal of this second scenario:</u>**Here too, how, in the absence of appropriate means of investigation, can we judge the relevance of this second hypothesis?

And what can you imagine if there is a confrontation between two Universes or if a black hole is intruded into an opposing symmetry Universe? A particular big bang, a singular cataclysmic phenomenon or more conveniently the use of the principle of exclusion? We are "in unknown land". This incursion into the Multiverse Cosmos can no more refer to the wave/particle mechanics of our good old Universe than this same mechanics can seem to be used as a reference for developing hypotheses on the quantum scale.

A variant in the form of an infinite construction of a "supers universe" and "supers anti-universe" formed, each, of a similarly symmetrical universe, would not change anything. The pyramid structure would only multiply the levels, without validating the logic.

3 th Scenarioretained: The Risen Universe (a) to (b) Do not take at face value). *Hypothesis of space/time with multiple symmetrics* It is all about hiding.

The support points for this concept, in which each Universe has its own Cosmos in a virtual setting assigned to it, should first be described. This is a rethinking of the Multiverse Cosmos, each Universe is expected to have two virtual dimensions. In this logic that will be developed about antimatter (see Chapter VIII), a cooled Universe is detached from its space. This Universe, which boils down to the presence of a black hole horizon, then enters a depression. Space is no longer there, time has disappeared, no interaction is permitted. Black holes appear considerably distant from one another. This would be true if any space separated them; otherwise this is not the case.

Then there will be a singular "no" event (because without reality outside of itself) that will collapse all the black holes in the horizon into a single, unserviceable point (remember that at this point, space has disappeared over time and SMBH are no longer dispersed). Is this a reference to the principles of exclusion and uncertainty?

A Big-bang at a large gathering, will generate a new Space/Time through a phenomenal implosion: a final collapse.

Universe and anti-Universe don't really come and go, if we recognize that each Universe is its own anti-Universe in these rollover cycles. Symmetry and anti-symmetry co-exist discreetly in a virtual dimension (see chap for development. VIII).

The search for a fundamental balance will remain underlying and will perpetuate the cycle. Time would accompany this continual renewal, but we can talk about starting over when it comes to the Universe that really has no past or future.

This aesthetic scenario has the merit of simplicity, in a reaffirmed concept of Multiverse Cosmos.



SMBH of the horizon and the diffuse energy collapses in a no localizable

Big-bang

Exponential expansion with appearance of the first particles

Relativist expansion and training of planets, stars and galaxies

Groupings of the material, training of massive black holes, the Universe cools and loses in density in its central part

> Tangential expansion, training(form ation) of great massive black holes

The Universe became black holes, the notion of time disappears. The black holes of the horizon will open a new Space-time

# The circle is complete...

#### VII <u>A singularity that would have nothing unique</u> (And which, plural, would combine out of time)

It is established that any energy can be quantified as follows, knowing that the same energy can change state "without notice".

- If particulate E = mc2 (m=mass,

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and c = speed/light)
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- If undisclosed mass E = hf (h =Planck constant, and f = frequency)

Within  $1^{\text{to}}$  case, the constant is the velocity of the photon (299792 km/s)

squared

In the second case, the constant is the Planck equation, ( $6.63 \times 10-34 \text{ j/s}$ )

It cannot be totally excluded that constants and c can vary "over the long term" as the architecture of the Universe evolves. Is that disturbing?

For the same energy level, we have some form of equivalence between mc2 This confirms that there is a substitution relationship between mass and frequency. From this, one should logically infer that constants that refer to the notion of time, may well be overlooked for the singularities of the beginning of the Universe (Big-bang "in the initiation phase" of time and space) and the end of the Universe (SMBH "at rest" in a universe without interaction).

Why should the "excessive" energy thus released during the Big-bang not escape all known constraints, without at the same time questioning the ideas developed since Einstein for what follows the singularity of origin?

In a basic but suggestive formulation, these equations could evolve as follows, on the understanding that these are unverified (and may be unverifiable) assumptions:

#### • <u>Big-bang</u>

The primordial energy, without revealed mass, may, though without mathematical rigour, allow some type of equation:

# E = energy released in a time not yet begun but of inordinately high intensity.

A break in the cosmological equilibrium generates an exceedingly high energy wave, a sort of photon concentrate (pure energy) that has no mass occupies no space.. This first impulse, a prelude to theelectromagnetism, with no precise position and extreme power, will emit Gamma radiation in unexpected frequencies. The amount of energy deployed is certainly much more than several billion YeV (this indication is not based on any estimates but gives a vague idea of the extent of this first phenomenon). We cannot really talk about wavelengths. The primordial Universe is smooth and uniform.

Unique as it is, this initiation phase has no impact on theBalance of Balance cosmological.

What we could measure in terms of space and time is what follows this primordial quantum of energy -- a significant decrease (all things relative) in temperature, accompanied by radiation of ever-too-high intensity in wavelengths that remain considerably short.

After this stage, Space-time is open and begins to expand; the temperature drops by spreading. Wavelengths increase in inverse to their propagation frequencies. The energy released can then be observed under the ambiguous appearance of a new phenomenon, both ondulatory and corpuscular, at the choice of the observer (this duality will be repeated later on).

The interconnection of waves, with frequencies and amplitudes, will generate and transmit the first embryos of particles, likely different from those we know. These overriding "anomalies", which can be likened to intricate wavepackets, configure Space-time. They create magnetic fields that will suggest wave/corpuscular complementarity of the first photons. These waves of variable intensity, overlapping and overlapping, create frequencies. Primarily unstable and "heavier" particles than our current particles are likely to be the product of these "journey accidents". If gamma rays can break the components of matter, there is nothing illogical about the reverse of an inordinate frequency, which is the origin of a kind of "plasma" formed in the early days of the Universe, which will be the germ of the material to come. To illustrate this, one could imagine, on a calm body of water, the fall of a huge cone-shaped rock. At the point of impact, excessively high circular waves will form which, when breaking, will generate swell trains.

These waves, not at the same speed, cross and overlap, producing foam and liquid mountains. Add to this the lowest possible air temperature (absolute 0); the water sheaths will instantly freeze to ice. Comparison is more meaningful if we exclude the gravity and density of the ambient air.

On the surface of awakened water, these ice cubes, like in a Shaker, collide, fragment and recombine, like the first components of matter, while retaining the ability to return to their original liquid state. All of this is just an image, energy doesn't make waves and has no physical reality (see below).

In the early stages of the Big-bang, the expansion that might seem wonderfully exponential, in the form of kinetic energy, is disturbed by the chaotic presence of the first particles. Its expansion takes into account a new "occupancy" context of space that marks the "flow" of time. The basic atomic materials that later became protons and electrons, give matter a relative balance of forces and give it a reality configured by space-time. At the current stage in our Universe, protons and neutrons would represent the stabilized counterpart of these waveforms, which are the matrix of elementary particles and their components.

The neutrinos discovered later, are supposed to "regulate" the transport of energy as a "safety valve" within this assembly module called the atom. The rest, which highlights what appears, among other things, as power transfers between electrons and photons, is more accessible to our curiosity. The photon remains the "vector" that has always maintained a certain balance of forces within atoms and molecules.

#### • Expansion

This dispersal and reflection energy begins to lose in amplitude to "express" in ever-high frequencies. It will quickly develop a range of wavelengths. These entanglements will continue to create particles that will assemble in the form of lighter or heavier atoms. Some of the primordial energy will be slowed or deflected by these first atoms. Another part will be absorbed and diverted by interacting with free or non-free electrons. We then see a dispersion of the photons, which will become less energetic but will nevertheless keep the temperature bound to fall inexorably. This phenomenon is signalled to us by a microwave diffuse background originating from the farthest part of our observable Universe. In a cooled Universe, these energy-poor free photons will reach inordinate radio wavelengths. This means that the space in the extreme will be emptied of all forms of energy. However, the entire energy of a Space/time does not actually suffer any loss. And at the end of the day, all of this energy will be recorded in SMBH. This final step will precede the collapse of Space/time.

During the period of expansion of a wavelength/particle universe:

--  $\mathbf{E} = \mathbf{mc}_2$  but under what circumstances can particles be resting? This equation is not to be relativized by the amount of incredibly high oscillations of atoms, frequency (ratio to time) and mass (ratio to space) being intimately linked.

 $-\mathbf{E} = \mathbf{h}\mathbf{f}$  but just as hypothetical is the consistency of wave frequencies, which continue to evolve imperceptibly downward.

The material thus creates from high-energy waves, preserves in a twodimensional space/time, the "memory" of its symmetry. Like wave / corpuscle duality, matter and frequency are the same representation of an energy level. In the intimacy of these early constituents, matter seeks its symmetry dictated by Cosmic Equilibrium developing in each dimension (Universe and Anti-Universe) a substitute for the quantum dimension. An equilibrium will be achieved from reverse polarity "wave particles" (electrons are of negative polarity, unlike protons consisting of charge quarks + and – but mostly of positive charge).

This bipolarity, which is expressed through the four forces considered fundamental to our Universe, only transmits the symmetry that characterizes the undeclared latent forces of the Multiverse Cosmos.

To follow the example of the electron, it appears as a wave that travels through an ellipse at a distance from a nucleus. It should be noted that there are as many electrons as the nucleus contains protons and that each electron has a restrictive revolution sphere, which is not assigned definitively but in response to the precarious balance in progress.

The electron should either leave the nucleus associated with it, if it were like the mass-free photon, or hit the nucleus if it was overweight. Its polarity is a peculiarity of its mass as small as it is (1/1850 of the mass of the proton). Only a variation in the mass of the electron, determined by its velocity of motion and orbital diameter, allows it to remain at a respectful and especially necessary distance from the nucleus. This adjustment of the mass impacted by photons would also encourage it to jump from one atom to another, depriving it of its presumed corpuscular appearance before our eyes. Its speed of motion and mass are constantly changing, and one can assume that its energy changes accordingly. It is also likely to vary with changes in its near and large-scale environment of more general phenomena (decreasing average density of the Universe and increasing masses of stellar structures). So we can no longer find heavy quarks (C, T, S, B) that have broken into lighter particles (N and D). Presumably, other missing families with larger closures than our current quarks, neutrinos and electrons, inhabited the young, freshly entangled and very hot density Universe.

Consistent with the standard model, we find comparable strength relationships between particles having a positive load mass what are U-

Quarks (initially heavier; C, T) and particulate matter having a negative load masswhat are D-quarks (initially heavier; S, B). Exchanges are taking place, justified by the fundamental need to preserve the delicate balance between the particles present. Thus, while modifying their characteristics, protons and neutrons achieve a particularly long lifespan, assumed to be equivalent to that of the Universe. Small variations in mass occur by energy adjustment. Particulate Matter without load but not totally without mass called electronic neutrinos (or sometimes M, T) participate in this delicate balance, helping to conserve energy during nuclear reactions (transfer of quarks between protons and neutrons). Consistent with this logic, "force vectors", bosons without load or mass (called gluons for strong interaction and photons for electromagnetic interaction) act as mediators and thus frame these exchanges closely "channelled". Other bosons (Z and W), high masses but almost without charge, would intervene within the atomic nucleus, managing the downloading and rebalancing of weak interaction. All these virtual particles are inseparable from the notion of waves. They play distances and can intervene without any delay (see Chapter VIII).

Fusion and nuclear fission (weak interactions) that permanently alter the landscape within galaxies, represent the spectacular manifestations of accidents needed to correct certain imbalances and benefit cohesion and material assembly. The 'free' photons of the primordial radiation have lost much of their energy in intensity. Heavy elements are rare except for the special presence of black holes.

One way of representing the forces in symmetry, transposed to our Space-Time, is to refer to an image that speaks to us, in other words, to give them a physical appearance commensurate with what we perceive as our reality. The artifice chosen is to describe this assured conflict of intricate energy, in terms of mass, charge and spin. We can therefore classify them according to these criteria in quarks, leptons or bosons. These parameters would correspond to the degree of energy entanglement revealed by the Big-bang in an unrecognized two-dimensional context. Particles and antiparticules have no phenomenological existence and share the 2 virtual and symmetric dimensions of the same Space/time.

We represent electromagnetic radiation through wavelengths or frequencies. We are therefore referring to the notion of time. It would be fairer to consider energy as the observed overlay of quantum (or virtual) states shared out of time (or more precisely, at the same time not measurable). Not being able to discern the interactions that "connect" these two dimensions in opposite symmetry leads us to describe these interactions by default in terms of uncertainty and probability.

A two-dimensional space/time becomes a universe fiction that excludes all physical location. There is no inter-dimensional space, and energy interactions based on symmetry can play out distances. Both dimensions "adapt" their overlay or to be more accurate; a way to lift the veil on the tunnel effect. This process will lead the two symmetrical Universes to be confused (Big-bang) by erasing what was for the observer that we are our Space/time. Because what makes our reality, has no history for the Multiverse Cosmos.

#### • <u>Cooled Universe</u>

In the end, in a **cool universe of super-massive black holes** (SMBH), this expansion should probably validate some equation, equally difficult to formulate, but probably of a type:

 $\mathbf{E}$  = energy frozen in a time-out: at this stage, the material gathered in the core of SMBH no longer emits thermal energy. No frequency of oscillation of what were atoms, now intertwined intimately with one another, can be seen. This singularity can be described as an "energy point" without revealed intensity, and converted to an extreme density mass where the notion of time is no longer present. In this case alone, the particles that give the mass are at rest.

In a cooled Universe, SMBH are globally polarity neutral. The physical laws of the current standard model then become obsolete. The relative homogeneity of the Universe is increasingly impaired. But we are putting ourselves in a distant future that is apparently not the situation of the Universe we occupy.

- Whether these interactions are imperfectly described or insufficiently understood does not change the finding; All contribute to ensuring these fundamental balances that characterize our Universe. To go to the bottom (it would be more accurate to say "endless") of all these pseudos particles is beyond our means of investigation, but would probably make the connection between what we think of ourselves as the infinitely great and the infinitely small (see chap). XII).
- The following hypothesis would establish this link. It proceeds from the same logic as that developed throughout this reflection; below the revisited wall of Planck, the components of these elementary bricks might appear to us as lacking in what makes the observable

particularities of matter. Particles would only be the virtual outcome (a kind of dressing) of the intimate interactions of a symmetry unique to our Universe.

As a result, each Big-bang will generate new black holes after an endless expansion (interminable by an observer alone). These will fuse and grow, to the point where they represent almost the bulk of the mass of their local universe to the detriment of its galaxies, galaxy clusters and other stellar gatherings thus absorbed.

Reflections and intrigues will disappear.

The expanding Universe cools down until the lack of time within the SMBH it has generated blurs any idea of space. So space-time will disappear when almost all the energy revealed by the Big-bang, "focused" in the form of SMBH without any significant activity, will be taken over by a new generation space-time.

For the observer who is there, the measurable time is therefore anything that occurs between the "tearing" point of these opposing symmetric forces and the time when all matter is contained in the form of SMBH.

If the Multiverse Cosmos is considered to be timeless (neither start nor end), the present time is not garnishable; The multiverse Cosmos erases any event before it is even "recorded" and any event remains unsustainable for it.

Our feelings are limited to fluctuations perceived as conflicting matter in its various forms. It can be said that time is a concept that is traced back to space and calibrated by man in terms of how he perceives his environment.

An abandoned theory predicted that after a period of expansion our Universe would eventually contract and end in Big Crunch.

This theory is not so false when one considers that matter, after being scattered, ends up gathering in the form of SMBH. The latter will be well into their "infinite flight", the beginning of a new Big-bang with expansion and concentration of matter by reconstituting new black holes. Surprisingly, Stephen Hawking suggests that a black hole would open a path to another Universe. Nor is this science-futurist image totally utopian in the sense that the SMBH behind a Big-bang will give access to a new Space-Time. It is not clear, however, that this mode of transportation is appreciated by the observer who would use it.

The notion of critical threshold in conjunction with the thermo-activity, is essential for understanding the concentrating evolution of matter and for

speculating on the history of our Universe. This could be explained as follows:

- As we have seen, the constituent particles of matter result from the entanglement of extremely high frequency waves. The decisive level of energy needed for this integration is reached at the heart of a primordial <u>"plasma"</u> anisotropy. The temperature is at its peak.
- As we know, a cloud of gas eventually densifies itself to form a star. In this case, the critical threshold to be exceeded is called <u>mass of Jeans</u>, which also takes accounts for the temperature of the gas.
- After exhausting its nuclear fuel, a star will collapse into a black hole when its mass is more than 2.5 times that of our sun. This critical threshold to be exceeded is called <u>Chandrasekhar limit</u> and corresponds to a certain temperature of the star.
- A black hole absorbs everything that crosses its horizon. Also, the centre of a galaxy is predestined to form a black hole. It can also be the product of the fusion of white dwarfs or neutron stars that will combine their masses. The critical threshold of <u>density</u>, "fatal" to the Universe will be reached when an indeterminate mass is satisfied in a Universe that is virtually converted to SMBH. We can assume that the timing of these black holes will be almost eroded. This threshold takes accounts for the temperature of a cooled Universe, in a space vacuum.
- The resulting singularity brings together in one <u>virtual point</u> therefore not localable Multiverse Cosmos all the energy of SMBH. Such a singularity cannot be described in temperature terms.

# XIII <u>A well-hidden secret; Anti-matter</u>

(Too discrete to notice)

To date, this chapter has been referred to many times. And it probably deserves more development, and it should be on the front pages.

What are the determinants that we have to claim antimatter?

- A Universe seems to retain only one symmetry. That is certainly the observation made by any observer who occupies it.
- Each Universe is erased into a "Risen" Universe (we are looking at the 3rd scenario of the chap). VI). There are some observations that indicate that antimatter exists and that matter and antimatter are capable of annihilating themselves. So they can't live together.
- The speed of movement of photons (radiation) could not exceed a certain relative limit.
- There would be a shortage of material (the hypothetical dark matter) and also energy (also called dark).
- Interaction = heat = entropy vary together and characterize the energy revealed (a black hole that does not reveal its energy can be called singularity).
- Matter is the realization we make in the context of "invented" Space/time, of an unobservable process, infinitely reproduced and described as follows:

Big-bang energy unveiled decouples energy/material and collapses into a first singularity (the horizon of black holes) reconstruction into a singular "reverse" (the "outsourced" Big-bang that annihilates all black holes) etc.

What can we infer from all this?

The answer could be that of a baker: "It would be a thousand sheets!"

What cannot be seen may be conceivable by inference, provided that the hypothesis remains consistent with most of the indices identified and does not (too) challenge general relativity.

The two symmetrical dimensions of the same Space-Time, are not really going to stack one on the other, but are going to fit together in as many leaves as particles, antiparticulates and all forms of energy. This is a very, very large sheet of paper! Quantum strata of space interpenetrate into each other without mixing. The construction is virtual, as are the particles and antiparticulates that make up matter and Anti-matter. The space/time then becomes multi-dimensional. The Universe and the Anti-Universe share the same space but in

different dimensions, where they evolve in parallel and mirrored reverse copies. It should be assumed, however, that a slight "lag" due to a synchronization defect between the two symmetries prevents them from annihilating. Any interaction between them is indiscerble except one: the gravitational effect of shared time. If we think that a Space/time ends as it started, we can interpret it as a return to the past that would leave no trace of it. We could therefore consider that each dimension shares a time that is not the one we perceive. This imaginary time would make no distinction between past and future and would thus not have the value we give it as a chronology of events. Virtual time; this is consistent with the idea of virtual strengths and particles. Time suggests this double dimension of space. This sharing of time would explain the role of photons that have no mass or load and provide unrecognized connections between the two dimensions. Light velocity, considered a non-invasive constant reported to several observers, also becomes a variable given this degree of sharing linked to the "age" of our Universe.

These two dimensions are configured to the smallest of the quantum scale. Then there is a question. If we do not make a preference, would we not be without knowing, simultaneously and without discerning what distinguishes one from the other, in both dimensions?

To try to answer it through the image, we could draw a parallel with a trivial electrical phenomenon, the alternating current that alternately moves free electrons in two opposite directions. The period would not be limited to 50 or 60 hertz/second, but rather almost smoothed out. This could explain the theoretically unacceptable absence of antimatter (and antienergy). Energy and anti-energy could be shared in an underlying way, with waves and frequencies.

Matter and Anti-matter, although in their own quantum dimensions, would surely have physical realities that are not quite dissociated if we were able to represent them on the supra atomic scale. These dimensions will ultimately be found in the intimacy of a SMBH where matter and antimatter will annihilate in a second generation Big-bang.

One way, but perhaps not the best, to explain symmetry in our Universe would be to perform the following experiment:

We use 2 slides representing the same black-and-white landscape with no shades. One slide is in black on a white background, the other is in white on a black background. By superimposing them, the eye sees that the landscape has disappeared. Everything has become black.

Now let's use 1 projector per slide and one screen. The images are superimposed. The illuminated portion of each slide covers the dark portion of the other. Then we see that the landscape has also disappeared, but the screen is, this time, white of light.

This suggests that in both scenarios, the only overlapping view of this same color-inverted landscape does not allow the reverse slide scheme to be imagined if it is concealed. This optical effect is our vision of a reality that belongs only to us but does not reflect a context that has been ignored.

Universe and Anti-Universe, each have a dimension that is privative to them and not capable of mixing. Their discrete interactions (as a non-relocalable cause) masked from our observed reality, however, are perceived as additional gravitation (dark matter and dark energy). The observed consequence is the illusion of distance extension and time contraction. Everything is determined at the quantum scale that is unobservable and trapped in uncertainty. Space/time is "off-shoring" and enters into depression of energy and interaction as a result. Its energy content is conserved but then focuses on SMBH, these essential contactors of gravitational energy. During the final collapse, matter and antimatter will annihilate, making an apocalyptic depression by the disappearance of the dimensions they "occupied". The Big-bang will fill this depression by revealing the 2 undeclared latent forces of Multiverse Cosmos who, for memory, have no reality except in a virtual form assigned to our reality: the Universe. This 'awakened' kinetic energy by the Big-bang effect appears to have substituted for the potential energy of erased SMBH.

A Space/Time can be conceptualised as a Universal + Anti-Universe assembly in a dual and reductive representation of the Multiverse Cosmos.It's all about the balance between "distribution" of energy and entropy being considered. In a black hole, deconstructed atoms no longer have kinetic energy and the potential "alternative" energy has no ability to reframe. The energy is maximum and disorder is out of place.

We have not left the original idea based on a symmetry of 2 latent forces, not revealed without a physical reality. They have no other purpose than to help understand this paradigm.. To speak quantum is to evoke what is virtual and therefore to speak in the deepest abstract. We are close to thinking that nothing looks more like nothing than nothing. Who speaks of nothingness?

There is always a question in the background. It concerns wave/corpuscle duality. The commonly accepted answer is that the choice is determined by the observer's point of view and the method of observation. What appears, at first glance, to be nonsense has led to a very controversial concept of tailormade wavelength reduction. Without going that far, a "rational" explanation, drawing parallels with a phenomenon we know and explain, might be able to demystify this apparent duality.

For this purpose, imagine that each energy level is a succession or pile-up of two ocean swell trains of the same wave height and length (also known as wavelength). Each wave train is supposed to represent a dimension of energy, one dimension by symmetry and frequency. However, we are unable to distinguish one symmetry from the other, so for us there is no opposite symmetry. What we see are ridges and between each ridge, the water flow (the wave). The same is true of the diffuse radiance of our Universe. The ridges are related to groups of corpuscles (photons) and waves to radiation (waves). In terms of energy intensity, steep ridges would reproduce high frequencies and short waves would be considered to be at reduced wavelengths.

The swell seems to be moving, but in fact each water molecule forming the wave travels a closed loop on a vertical plane. Water movements do not distinguish between water molecules that eventually mix. Surface current is involved in the movement of the wave train. This surface movement could be comparable to the observed expansion of the Universe. Thus, the movement of photons gives the appearance of inflation in the space they occupy.

That is the end of the comparison.

Indeed, if these two dimensions are both inseparable and indiscertable, the waves/particles cannot be localized (a non locality principle approached by Max Born), they do not make waves. To speak of undulations is to mean each symmetry of each of these "undulations". Quantum overlay removes distances and removes time. It stems from a "permeability" chosen between the 2 opposite dimensions that define space/time.

In each dimension, the two opposing polarities (charges) neutralize but are fundamentally essential to particle architecture. However, as a result of "nuclear accidents", "unfinished" particles can be detected with little or no polarity and uncertain mass - neutrinos. These could be likened to "denatured" photons when interacting as part of the electroweak force.

If we consider them as mere "force supports", all particles would be virtually identical. It is their polarity that makes them different. The mass we've given each particle, in large part, reflects the degree of impact of their polarity on other particles. It is the adjustment of this polarity translated into mass terms that achieves the balance in each symmetry. The kinetic moment (spin, orbit and rotation speed) allows for the fine adjustment of this relative balance. It is this search for a somewhat unstynchronized balance between the two opposite symmetry dimensions that makes them stand out. But it also involves some permeability allowing mass-free particles (photons, gluons) and possibly other non-charged particles (electronic neutrinos, bosons  $Z^{\circ}$ ) to communicate without delay from one symmetry to the other. Photons, gluons and likely neutrinos represent these interactions infiltrating both dimensions. They contribute to the pooling of energy between the constituent particles of the atom for one and the core of the atomic nucleus for the other.

An atom brings together in its nucleus, protons and neutrons in a ratio of 1/1 to 1/2 (maximum not reached). Protons and neutrons are each made up of three virtual particles: quarks. The up quarks have a positive polarity (+2/3) while the down quarks have a negative polarity (- 1/3). Other categories of heavier quarks (c, s, t, b) appear to be cohabiting but should be reduced in intensity due to the dispersion of energy that "frees" space.

The neutron mass added to the proton mass gives atomic mass.

By convention and convenience, we mark a boundary between:

- the quantum dimension; virtual particles (quarks, leptons, bosons and their potential components)
- and the observable "world"; baryonic matter (atom, molecules .). Protons, neutrons and electron belts that connect these two dimensions of scale are seen as places of exchange where information is transmitted in the form of energy.

Some particles compensate for their low potential energy with kinetic energy that can approach that of photons.

- Thus, for the electron, it is the orbital velocity in relation to its repository, which is the nucleus that ensures protons' cohesion with neutrons.
- For the small, load-free electronic neutrino, this is its release speed, which will be even higher as the atom will be heavy.

A proton contains [2 quarks up either (2x2/3)] + [1 Quark down or (1x-1/3) x double mass], resulting in an excess of 1 Quark up and 9.6 MeV energy. A neutron contains [1 Quark up either (1x+2/3)] + [2 quarks down or (2x - 1/3) x double mass] resulting in a neutral charge with an energy of 12 MeV. If we cannot talk about mass, in terms of weight, for virtual particles, it is different for protons and neutrons that have assumed equivalent masses (insignificantly, the neutron would be a little heavier). Energy takes on a physically measurable appearance. An atom is always a neutral charge. It therefore has as many protons as electrons, the latter being the opposite charge (negative charge) at the first. So each electron balances with an associated Quark up of the proton.

The electron would be like a Quark up that has mutated by changing polarity.

Muons and rates, which are particles of the same polarity as the electron, but much heavier, will have the same destiny as quarks c, t, s, b. and are consistent with the same logic.

When a neutron becomes proton by beta reactivity, it is like turning a Quark down (-1/3) into a Quark up (+2/3). During this mutation, he would lose 2.4 MeV except to consider that in reality, the nucleus has an additional Quark down. It is in this form that the phenomenon of the intrication of high energies, at the origin of elementary particles, is prolonged.

To retain a neutral charge, the atom then acquires an additional negative particle by capturing a free electron. This exchange to remain balanced will incidentally generate an electronic neutrino, a type of photon "configured" according to the energy context.

This neutrino from beta radiation produced by nuclear fusion will allow a fine adjustment of the load parity by generating a mass supplement. The masses must therefore adjust to the configuration of the Universe marked by entanglements, groupings and mergers. Due to a lack of historical data, this phenomenon is not verifiable.

Conversely, it can be assumed that in order to mutate to neutron, a proton must absorb one of the electrons of the atom to which it belongs. The atom that was deficient, does it actually have a new neutron? This is not certain to the extent that the average atomic mass should continue to decline given the expansion effect of the Universe (leaving out the final black hole episode, which breaks the integrity of matter).

Faced with a rhetorical problem, it becomes necessary to make imaginary comparisons.. Thus, one way of designing a virtual particle in recognized terms would be to compare it to a dimensionless energy bubble or an energy landscape without a horizon. This "landscape bubble" would be dressed in all the colours of the rainbow, intended to represent information of polarity, energy, flavor, spin . of any particle. Another peculiarity of this landscape bubble is power, such as the chameleon, changing its colours and breaking into several smaller landscape bubbles. The particle thus changes its status (so that neutrons become protons by releasing electrons and neutrinos). The fog-scape would then be distinguished by the reverse order of its colours.

One can imagine space-time as a tangle of quanta of spaces that, depending on their symmetries, occupy the two symmetrical dimensions of this space. Bringing together two symmetrical landscape bubbles into one would be like mixing their characteristics, erasing them from the landscape. Because we know that the colours of the rainbow disappear, once they are confused.

These dimensionless energy landscape bubbles are defined in terms of information (colours). They have nothing physical and they ignore space. They can therefore disregard the time to exchange with each other and with their symmetry; what we might call quantum teleprtation. Therefore, the moving speed of photons cannot be used as a reference for these quantum-scale interactions. The apparent expansion (in fact, the vacuum space) may explain a certain "lag" between the two symmetrically opposed dimensions. This lag will eventually disappear in the final collapse of the SMBH.

### IX Black matter and dark energy

(Not all is so obscure that it appears)

Let us recall a few reference figures which, in the face of the most recent observations, are not without problems.

Black energy: 68-70%, dark matter: 24-26%, baryon matter: 4-8%. These scientifically accepted estimates are currently leading to a stalemate as the first two components are missing!

Does our appreciation of the energies involved not indicate an approach that is both too simplistic and too restrictive?

To use meteorological terms, each Space-Time could be compared on many points to a large anticyclone that would itself be composed at all levels of a multitude of interlocked or uncoupled depressions and perhaps opposite turns if both dimensions are symmetrical.

• The <u>Black material</u> Assumed, but seemingly absent, may be justified by a more general error in assessing the masses to be taken into account and an incomplete knowledge of the laws of gravity (see Chapter X).

The mass readings of galaxies or their clusters and the scattered background are expected to give the average mass density (therefore disputable parallel) of the Universe observed. Dynamic mass and different observable light mass. The addition of masses in a system is always well below the total mass estimated from the gravitational effect of the system. This means that we are unable to accurately assess the mass of large structures and, most importantly, the mass of our Universe.

This could also be explained in part by the unrecorded presence of black holes, brown and white dwarfs, neutron stars, ionised gas clouds and other non-luminous bodies. Can we really determine the mass and what it means in energy, a black hole so hard to see?

Is it currently missing? % (estimated rate to be reconsidered based on the above) of material to explain galaxy movement.

This presumed missing material (dark matter) may imply a discrete but consequent interaction between the two symmetric Universes of the same Space/time. This phenomenon, which is affected by "osmosis", in a way, gravitation and its source, remains undeniable.

On the other hand, our observations are degraded, in all cases, by an unavoidable lag between the time of an observed past and the present (or actual) unobservable time of the event. This delay represents the time it took to measure the past of the event in question to get here. It is likely that the
Universe of present time (real time not accessible to observation) has since experienced more decoupling. Even though this process of making material decreases.. However, this phenomenon persists and contributes to the development of gravitational strength through the clustering and fusion of stellar structures.

However, if we know that the effects of gravitation are unlimited and instantaneous, we know that light, our framework for many observations, takes some time to send us information.

In general, the rate of release perceived as centrifugal energy decreases with distance. However, this trend is expected to be less pronounced, due to the fact that these are systems with high density but distributed in a diffuse and inconsistent way, such as galaxies. Indeed, the further one moves away from the galactic centre, the more one finds that there is more mass between the point considered and the central point (galactic black hole). But, importantly, this mass of stellar bodies is more or less evenly distributed between these two points. The gravitational force at the point under consideration is therefore felt more than if the entire mass were grouped into a single, high density central point. On the other hand, we see a scarcity of masses in the outer part at the point under consideration.

For some stars, the near-velocity of the galaxy's liberation gives the impression of escaping. This does not mean, however, that much of the material forming the galaxy does not end up, contrary to any expectation, directly or indirectly reaching the galactic black hole.

Gratation naturally gives a spherical shape to any stellar body. The centrifugal force, whether rotating or orbital, flattens the sphere and increases the gravitational effect. The "clock" mechanics of matter from atom to galactic clusters to pulsars (more than 1,000 turns/second) increase tenfold so discreetly (not observable) gravitational effects.

Increasing the speed of travel changes the inertial mass. This additional inert mass, not directly observable, may not be negligible. These additional gravitational effects are reduced in aging galaxies that are less active, more densely structured and whose temperatures have fallen. It becomes insignificant for a SMBH, free from all remarkable interaction with matter and represents the end of the phenomenon of gravitation. So what we call dark matter would not be next to what we perceive of our Universe, but would be intrinsic to it. It is revealing of a Universe in 2 dimensions in wich material and antimatter would not know how to be separated (to see Chap. VIII). All of this should lead to an increasing reconsideration of the energy balance of our Universe, without the use of particles such as wimps. Each Space-Time is a "precarious anomaly" that causes particles to form more massive and perennial structures. This phenomenon, because of proximity, represents the attractive gravitational force (**depressive force**). It aims to compensate for a "gap", which could be described as virtual memory, caused by a latent symmetry conflict. This force is only noticeable from a certain level of material assembly.

• The <u>Black energy</u> assumed, which is associated by default with the energy of the 'empty' and whose reality is no longer established, is supposed to explain the accelerated dispersion of matter in an expanding universe. That apparent expansion of the Universe, which is less and less annoyed over time by the diminishing interactions of galaxies that appear increasingly distant from one another.

Currently missing? % (the posted rate may be considered non-definitive) of energy.

This alleged missing energy (dark energy) led Einstein to imagine the famous cosmological constant. This constant is a mathematical artifice to respond to this lack of energy and yet represents only a small part of it. It would not be invariant because it could vary depending on the future energy configuration of the Universe.

Maybe, we neglect the gravitational effects of the additional material which could result from decouplings in not yet observable recent past.

The Space / time is not smooth and uniform. The energy released by Bigbang marks a fracture in the cosmological balance which is translated by the formation of knots of energy. These uncountable energy intricacies realize the material and configure the Space / time. Every knot of energy which can be returned to an elementary particle, creates a depression. It is the force of gravity. This effect of low pressure of the space is all the more intense as the mass which generates it is important. So the effect of low pressure of our Universe which takes into account the total mass of this one, must be considerable. Its reach is unlimited and is all the more intense as it shares the 2 symmetric dimensions of any Space / time. The gravitation which decreases with the distances, ignores the time and the distances. It is thus worn, immediate, by the strengths in an opposite symmetry of the Cosmos multivers. It interacts beyond the horizon of every Space / time. Every Space / time thus feels the gravitational effects added by all the others. This "indraft" participates in good part, in the illusion of expansion of the Universe. This is not contradictory to the idea of space in depression which characterizes our Universe. To summarize, we could say that gravitation is depression of the space.

This outward-looking force, which may have been interpreted as repulsive (!), accelerates inflation.**expansionary force**) by acting in reverse of the diminishing gravitation by reducing "proximity".

This expansionary force could be defined, otherwise as the memory of a "cosmic void", "foreseen" by any Universe outside of direct interaction. It is the result of a multitude of Space-time that fade away in the moment they appear.

To better reflect these two forces (attraction and expansion) in relative opposition, one could do at the extreme and at one point (the complexity of certain phenomena), a very distant parallel with living organisms. These are only hierarchical models of molecules, different cellsc cfrom diverse organs to complementary functions. These components will come together, develop, and structure themselves before they genetically reproduce on a very specific model: the DNA genome. Organic chemistry helps us understand some of the recurring mechanisms of these phenomena. Unwell-known interactions, developed in the intimacy of matter, must nevertheless intervene in this complex and programmed assembly of particles, which perpetuates life by collecting, selecting and eliminating, if necessary, the countless necessary components. Furthermore, the amount of energy implemented must satisfy, for the most advanced creatures, particularly narrow and constraining temperature conditions.

This comparison is only as good as the equal difficulty of describing the unidentified causes of the interactions that occur in these phenomena (or the illusion they give) in apparent opposition to the gravitation of the bodies and the expansion of the Universes.

What we see of our Universe is ancient history. The current and therefore real composition of our Universe is not observable. This means that much of the material, which emerged after the time we were reduced to observing, is not taken into account in our assessments of the overall mass of the Universe. A Universe observed from a return of photonic emissions from its past only makes it possible to determine imperfectly how much mass it might have at a later time. This outdated data also explains why the defect of so-called dark matter appears less important in the vicinity of our solar system than on a larger scale.

Finally and without looking for the fault of the brass in general relativity, missing matter and energy may well be where we think it is, but in a form that is hidden from us.

# X <u>How do you explain gravity and its effects?</u>

(A phenomenon that attracts mostly curiosity)

A big-bang seems to retain only a symmetry of force. In fact, the imbalance, by symmetry break, is manifested at the subatomic scale in the hard to define quanta form. These quanta are differentiated by their measured energy levels in terms of frequency. It is the unnatural neighborhood, of quanta bound in a dimension of the same symmetry, that will entangle these primordial frequencies and lead them to evolve into components of atoms themselves grouped into more or less massive structures.

Who would know quantum mechanics by ignoring the supra atomic world (stellar bodies, galaxies and other groupings of matter) would be hard pressed to imagine general relativity and reciprocally. It would be like knowing the solfège, ignoring everything about music. That what was a particle can exclude itself from a super-massive black hole in a Big-bang brings quantum mechanics and general relativity in a way.

LBoth are principles that appear not to be reconcilable. The same is true of the concepts of the multiverse Universe and Cosmos, yet inseparable. The idea of this test is to remove this boundary of a glaring incompatibility between what we know, or believe we know, and what "out-of-standard" logic makes possible.

Gratation remains the stumbling block of astrophysics, but does it justify the use of new and hypothetical particle called for the occasion, graviton? Gravitational force embodies the fabric of space/time. Its raison d'être, it seems, can only be explained by taking an interest in the depths of subatomic space; the Universe in its quantum dimension. It comes from that perspective, the string theory.

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Description of gravitation by reference to density and symmetry of matter, which are observations:

• On earth, gravitational force is the indirect expression of the density of matter. Thus, relative to the planet's centre of gravity (the point where gravitational effects compensate but density is highest), lower density liquids (oceans) are further away than solid bodies (rocks) and even less dense gases (atmosphere) are further away than liquids.

This could be explained by the "discrete" inter-dimensional interaction of matter and Anti-matter. This interaction becomes all the more intense as

particles and antiparticulates have less and less space in their own dimensions, creating the illusion of longer distances. C'est l'Espace/temps.

• The interior of a black hole where everything is confined to the extreme, should ignore differences in density. Anything that crosses the accretion disc is only potential energy. In each dimension, gravitation removes space and thus time.

E=mc2 would then become E=m. This is **the body of a black hole** in training.

- Within the SMBH, matter and antimatter will be blended into a common dimension: a sort of "Planck scale" to be redefined. A scale in which matter, space and time are combined and which is linked to the lack of physical reality of the Multiverse Cosmos. We are talking about **super-massive black** holes, just before the final collapse.
- Beyond a critical density threshold, because there is no space in its dimensions, a Universe and its anti-universe will annihilate itself. Space and time fade in an implosion of the space-time they represented. In a way, this singularity will be repeated in the Multiverse Cosmos, energy returned to the latter. But this can only be done by revealing virtual symmetry without which nothing would be possible. This "no event" would correspond to the definition of **Big-bang.** A big-bang would be nothing more than a SMBH Big Crunch out of time.

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#### Description of gravitation with reference to space and time that support our observations:

#### Phase 1

The Multiverse Cosmos (a concept with no reference to time or space)The Big-bang will, in a way, perpetuate a "breakthrough" in this "nil" of latent forces when the SMBH collapses on its horizon. This intrusion will differentiate, without spatial location, the two confounded virtual forces in opposite symmetry to the Multiverse Cosmos.

This depression "pops up" from nowhere, reveals Cosmic Equilibrium of forces, calling for a certain entropy in a non-physical space: the quantum dimension.

Phase 2

**That of the Quantum Dimension** (no man's land representing the transition to time and space): This depression fills in by accumulating phenomenal energy in quantum space. This no man's land with no temporality is a kind of inseparable quanta plasma of very high energy, in a state without granularity or discontinuity. This energy will then emerge from the quantum 'dimension' by generating the first 'free' quanta: photons of insignificant wavelengths. This photonic energy will reveal a variety of waves characterized by their high frequency level (colored frequencies, some of which will later produce visible light). Their entanglement will be the starting point of a so-called expansion phase and a galloping entropy. The first embryos to become the particles of the future Universe, "are expected".

All these particles have no physical reality. Their existence is virtual and will only be justified through future interactions of matter. Their "appearances" stealth gives the impression of moving particles in an extremely hot Universe. Gravitational force will be built with the first atoms.

Phase 3

**That of a two-dimensional universe** (a Space-time communicating only on itself): These intricate waves configure the open space. This particle materialization can be seen as an artifice that allows us to better understand the complexity of phenomena.

Thus, the orbit of an electron seemed circular or elliptical. But wouldn't the electron instead be a wave that modulates its frequency when it changes orbit? The electron fills the space around the nucleus by adjusting its orbital velocity. The occupancy of space, in both dimensions of opposite symmetries, is altered in this way.

We are continuously in both dimensions, without being able to distinguish one from the other. These two dimensions, which we are unable to differentiate, are shared over the same period of time.

Like the electron, every particle has its own antiparticula. Both, in their own dimension, are the product of intricate waves whose vibrations are perceived in a conventional way as constituents of matter. The atom itself is our depiction of these "clusters of vibrating energy nodes". This can be explained by this rather confused idea of quanta of energies, which are considered according to the needs of analysis or observation, sometimes on waves, sometimes on particles. This persistent need to materialize what would only be virtual is still there.

To illustrate the point; quanta and anti-quanta, each of their dimensions can be compared to two dotted lines (1 line per quantum) that would be superimposed. The dashed lines of one line filling the absence of lines of the other. At the end of the day, we should no longer distinguish between two intermittent lines, but a single line without a yield. The line would then be thicker because the radiation frequency (proportional to the "size" of the quanta) would be high.

The intricate waves suggest the notion of time by revealing polarities that allow a relatively stable assembly of the first components of matter. Without these innumerable interactions involving polarized or non-polarized virtual particles, we would not be able to perceive our Universe that otherwise would not be. The entropy of the system, which is called to move towards more density and less interaction, becomes "organized" disorder.

As the Universe gains balance and stability, its thermal activity decreases. With no physical existence, except for itself (and a possible observer), any new Universe will engage in a planned process of deconstruction in its most perennial dimension - it is mass compactness, which begins at the atom. Except for nuclear imponderable, the proton would indeed have a lifetime comparable to that of the Universe.

In response to the apparent expansion of the Universe, this process of "deconstruction" is akin to gravitational force. It is this fundamental force that would govern electromagnetic interactions that themselves produce weak and less flagrant interactions. This phenomenon, which will ultimately prevail over the others, will lead to the consolidation of all the material. All the starting energy will end "focused" within the black holes of a cooled Universe. Rare free radiation loses energy and frequency in a depressed space. The interstellar environment of space/time is "hollowed out" giving the illusion of dispersion that actually brings together matter. Containers that gather all the energy from a cooled space/time will be black holes.

#### Phase 4

<u>Super-massive black holes</u> (energy concentrates allowing the output of the original space/time. By joining the black hole, electrons and protons fuse and become neutrons with no future. No thermal activity is now visible. Without talking about energy loss, space and time will disappear with the gravitational collapse of matter.

The cycle then goes back in a loop to phase 1. The SMBH of a Universe fade away by generating a second-generation Big-bang. From elusive quantum

spaces, a new space/time will develop, which in turn will fade away from the Multiverse Cosmos.. This, in another form, corresponds to Friedmann's conception of a universe made up of a succession of expansions and contractions.

The energy field generated by the Big-bang, builds and fills space/time in two dimensions in opposite symmetries.

Virtual particles, the constituents of matter, appear by entanglement of this primordial photonic energy in potential energy. The absence of recognised symmetry (2 symmetric universes in discrete interaction in the same space/time) builds matter and antimatter and gives them increased density. It is as we have described, the associated effect of expansion and gravitation, which will deconstruct Space/time.

Interpreted differently, it was conceived, as is the case for so-called dark matter and dark energy, the existence of a new particle. This would give mass to mass-free bosons (photons and gluons) to make heavy bosons (z and w). The density of certain particles would be explained in a way by the presence of extra density particles. A means that could be described as "adaptive" to explain mass and density variations not included. The selected particle, known as the Higgs particle or the god particle (!), is thus supposed to justify the movements of the elementary particles. We know that the conditions of any observation affect the outcome. Observation techniques influence the movement and characteristics of an output particle and its virtual condition. Every particle is an energy wave; it is the observation that gives it the appearance of a particle. We can then ask ourselves whether this Higgs field (in a way, "spin 0 reconfiguration" photons that would confer mass on virtual particles) would not be a new representation of an abandoned concept, that of an ether that we would like to have without density.

Do you need the Higgs field to explain that mass is kinetic energy that has become potential energy? This potential energy represents the gravitational field renamed for the Higgs field occasion, except to give a different meaning, not understood by the author, to the latter.

# XI <u>All or Nothing?</u> (But do we really have to choose!)

We need to design in terms of space and time and therefore materialize. No longer associate density (mass), polarity (+ or-) and spin (rotation) with that of a particle considered virtual; it is no longer considering only "fields" of energy.

The rules of our standard model are valid in a familiar but imperfectly explored context (that of our observable present). But are they immutable? We miss the setback, but everything suggests that nothing is predetermined or definitive. Rules, which govern the balance of matter, can only evolve as the Universe evolves. Only uncertainty in its principle escapes. Thus, any particle is necessarily associated with a wavebeam and any wave can interact with the appearance of a moving particle if necessary. But not knowing when and where makes it an uncertain event.

Cosmology and astrophysics, told in terms of mathematics and physics, are sciences that humans have patiently developed to give meaning to what we struggle to understand from our reality. However, the proper logic should be used. The answer that would rule out any other hypothesis, would it not be not elsewhere; outside of the scope of scientific methods developed by technicians trained in excellence? All spectacular as they are, our achievements over the past 10 decades, mask the extent of our ignorance and our difficulty of understanding for the rest.

For some, and often more for convenience than conviction, explanation can only be spiritual or divine. This goes back to the early days of humanity. Since then, man has evolved, his critical sense has long been muzzled, too.

If we move away from our most successful patterns of thinking, could the answer not lie in what we call the virtual? This point of view inevitably bothers us because the vision we have of our Universe exists only through the eyes of its observer. He can only be convinced of the reality that is imposed upon him and in which he is totally part.

So what more precisely do we mean by too abstract a virtuality concept?

In a stoning formula, the Multiverse Cosmos (2 latent forces that can only be conceived through the notion of space-time) can be defined as no time. The Multiverse Cosmos shall not be construed as any kind of media or substrate. A void of every physical reality; this is the very definition of virtual. But that's pretty close to the definition we have of nothingness.

This definition is distinct from "virtual content" and space-time, which is, out of the quantum dimension, an "interstellar medium" full of radiation and particles. This virtual term then takes on a somewhat different meaning. It refers to the paradoxes that have been observed in certain observations. Indeed, any quantum observation reveals an elusive reality both in terms of time (duration) and space (location). Particles are produced by the invasive radiation of our Universe. We know that antiparticulates can appear stealth and randomly in our Universe. These phenomena can be described as virtual in the case of particles that will no longer exist once they are combined. But if we push the paradox further; Did they have a reality before that? It has been suggested that the antiparticule can go back in time in the opposite direction of the sister particle, creating the illusion of time. This sciencefiction hypothesis can be dismissed as the antiparticule is considered to be in another dimension (the anti-Universe) of space-time, in cycles without temporality.

To continue with this idea, let's leave (hard) the Cartesian mode and address the problem from . nothing. It can be said that **Nothing** (not to be confused with space that may be temporarily unoccupied) is the opposite of reality. And define the Multiverse Cosmos (2 symmetric latent forces that "neutralize" and have neither a temporal nor a spatial dimension) as something virtual, would it not be, in a way, to associate it with the idea of **Nothing**?

From experience, our logic is formatted for observation. It purports to explain any event by a causal context of circumstances. But you have to realize that everything is always based on "something" that we understood and agreed to beforehand.

However, if we were to accept that logic, which is perfectly adapted to our reality, we might try to understand the Universe according to other criteria. And as paradoxical as that may seem, why don't you want to explain from **Nothing** rather than relying on something pre-established that leads to an inexplicable original singularity?

Exceptionally, but to illustrate this point, let us deviate by making a brief reference to mathematics:

Thus, if we start with 0 (in other words, nothing) and accumulate all possible or imaginable numbers (theoretical hypothesis, admissible in arithmetic), the result is logically always 0.

On the other hand, this transaction (leaving out the concept of sets) may have different meanings:

• whether you start with a positive or a negative

- depending on whether there are increasing or decreasing numbers
- based on alternating positive and negative numbers
- according to\_completely random choice of numbers and their polarity

The result, at any stage of the current calculation, will only be exceptionally equal to 0

It is the sequence of calculations and therefore the time of events (this sequence of operations) that creates this illusion of non-null results. If we remove the time factor, the result can only be obvious. However, we used different data from 0, which is potentially real.

So it would be the idea of time that distinguishes something from nothing. This "something" from Nothing presupposes the idea of symmetry. It is on this same logic that the concept of space/time is based on two dimensions of opposing symmetries. These would, however, be slightly out of step in the context of interactions that are revealed in terms of time and space.

The challenge is to reconcile this idea of nothingness with the reality that we forge ourselves and to accept what might be defined as:

<u>A theory of the whole</u> (this "aggregate" of the unlimited radiation/matter universe, which is available to us) <u>in Nothing</u> (a Cosmos that is like nothingness and excludes even the idea of emptiness).

We ourselves would then be an illusion that belongs to us alone. Reclaimed in our space-time, where space and time blend until they disappear, we cultivate paradoxes. To admit that such a mirage inspires a similar discourse; Is this not already a paradox?

Thus, one could imagine this singular paradigm <u>of All in Nothing</u>..

# XII <u>A Theory, quantum in origin, of gravitation</u>

(A very discrete force but so present)

The energy released by the Big-bang generates the space it will occupy, in the form of an inordinate wave frequency. This energy, given its incredibly high release speed, is predominantly kinetic. That will be the speed at which it is broadcast.

The entanglement of evolutionary frequencies will disrupt this velocity of release creating "plugs" in the form of particle embryos in a relatively "homogeneous" type of plasma.

Particles + and – so created and stabilized will absorb as a mass some of the initial kinetic energy (somewhat like batteries store electricity).

This potential energy, which gives mass to atoms, is attractive to any other particle that changes its trajectory accordingly. The potential energy becomes gravitational force and is realized at the expense of the initial kinetic energy.

Space/time is the story of a substitution: converting kinetic energy into potential energy

**Kinetic Energy** From the Big-bang represents, with the opening of time, space inflation. It is scattered. **It is expansion.** 

**Potential Energy** is of the opposite effect to that of replaced kinetic energy. Potential energy is deflationary and aggregates. **That is gravitation.** 

Based on an equivalency principle, energy conservation remains assured.

Expansion and gravitation are linked by the same starting energy that will take on different shapes. This energy "derived" from the latent virtual forces of the multiverse Cosmos will "return" to it when the final collapse occurs.

What is true for symmetry is equally true for its opposite symmetry. Free of mass and load; photons, gluons and any other force-mediating boson would not be unrelated to some Universe/Anti-Universe permeability. It can therefore be assumed that the expansionist and gravitational effects that will lead to the collapse of space/time are explained by these discrete interactions between the two opposite dimensions of space (see Chapter IX on dark matter and dark energy).

Expansion and gravitation are in the same logic and accepting one is recognizing the other. Gratation loses its mystery.

The waves that fill space have neither mass nor polarity, but are not indifferent to the presence of matter that reacts to their presence. The sense of movement of the primordial particles no longer follows an axis represented by rays of an expanding sphere of energy. Movements gradually become random and tangential and increasingly disrupt this initial "star" expansion. The speed of release is becoming increasingly "tangent" so that the expansion observed over a "region" of Universe does not seem to slow down. Furthermore, SMBH continue to densify matter and energy that "release" space, giving the impression of extending distances. Gravitational energy by substituting for kinetic energy varies the topography of Space-Time and gives it "energy relief". Eventually, gravitation would prevail, which would suggest a Big Crunch. However, this final solution should not be accepted, at least in its traditional sense.

Indeed, if all that makes matter comes together in a delicate balance of competing polarities, and if the mass of the Universe grows more and more slowly, its overall density will prove unevenly distributed.

Aggregates of material where potential energy is increasingly intense appear to widen the gap. The effects of gravity between these appear to be diminishing. In the very distant future, there will only be SMBH in our Universe, of extreme density, free from direct interaction, except for the gravitational effect.

These SMBH will deprive our Universe of its light (photons) and its heat. The time is about to end.

# The continuing apparent expansion of our Universe is in the following paradox:

What we think we're seeing are large spaces and aggregates of material that are increasingly moving away from each other.

What we do know is that matter gathers more and more, reaching unsuspected densities within black holes.

We also know that the muzzle velocity could not be sustained as the particles interact with each other. The decoupling (intricate kinetic primordial energy into mass potential) of energy intensity is becoming less and less remarkable.

What makes it look like the distances are going up? Wouldn't it be at an advanced stage, with the size of the SMBH collapsing into themselves and making space inexorably diminishing in our eyes? This scenario remains consistent with general relativity when it predicts that gravity distorts space and prohibits straight line movement.

Otherwise stated; we have seen that the density of a body puts negative pressure on space and that interstellar space loses in "occupancy" with the consolidation of material.

As space diminishes in occupancy, time slows and distances appear to increase. It is this phenomenon involving space, time and level of interaction between massive bodies that gives the impression of a rapidly expanding Universe. It will therefore take more time to travel the same distance from a known depressed interstellar space.

A peculiarity of the gravitation force (see Chapter XX on links/branes) is that it acts in real time, in proportion to the masses involved, and in inverse proportion to the square of distances. In other words, you could say that it doesn't really move in space/time but occupies space. She is the quantifiable representation we make of material. In this gravitational transfer, the kinetic energy becomes the degree of agitation of atoms with particularly high frequencies (oscillations). What we translate by heat is the feeling of the excitement of the molecules that results from it. This gravitational force, which predetermines all the others, changes the space/time by reducing the first and compressing the second.

Perhaps we are in a phase of relative sharing between kinetic energy (continued velocity of release) and potential energy from the material (recovered under the appearance of a capture force). Otherwise formulated; our news would be at an intermediate stage, between the release/diffusion of the energy revealed by the Big-bang and the dispersion/assembly of that same amount of energy that configures our Space/time before the final collapse.

It has been observed that gravitational force slows down time for all events that are subject to it. This vocation to suppress time is also inevitably a tendency to suppress space.

Thus, any gravitational depression in the topography of Space-Time "hollow" as it were, space and "deform" time. In a way, it creates funnels (one could also say valleys) that are more or less deep. Any other nearby mass (this proximity is particularly extensive) is affected by the funnel, whether or not it can escape. These are in fact shared and reciprocal interactions, any object massive by its potential energy acting as a funnel, more or less dug according to its energy level. In a cooled Universe, the interstellar environment, deprived of matter for the benefit of SMBH, no longer has much of a temporal reference and can "resemble" what "conceals" the wall of Planck.

All of the above suggests that our space/time should indeed conceal an additional dimension, with globally equivalent energy but opposite symmetry; an anti-universe made up of anti-energy and antiparticulates. They participate in the dimension that belongs to them, in the same low-pressure effect that, by "shortening" the distances, allows the gravity of any stellar body to come closer together. It is not matter that attracts matter, it is the quantum void at the heart of matter that brings it closer. It would also help to justify the unaccounted-for gravitational effect and dispense with the default presence of a mysterious dark matter. Black energy would also benefit.

# XIII Joining gravity, electromagnetic forces, strong and weak

(A challenge more than a challenge!)

Atoms, both heavier and lighter, are inherently neutral (except in fusion or nuclear fission) and the material is relatively stable.

This can be explained as follows:

Their nuclei are generally positively charged and therefore naturally diverge from the nuclei of other atoms.

Electrons are of negative charge and avoid by altering their orbit or changing atoms.

In nucleus/electron interactions, the kinetic moment of particles (rotation, ellipse circumference, rotation axis, spin) is adaptable. This permanent parameterization (this is the principle of the gyroscope subjected to torque effects) ensures the stability of atoms and their assembly into molecules. Would the cohesion of matter reveal a form of intelligent behaviour?

**Nuclear interaction strong** (the most powerful of all) is fairly similar in these effects to gravitation but is practiced in **quantum level**.. Very short in range, the strong force brings the particles together in the atomic nucleus. It involves a liaison agent (not really a particle, but necessary to understand this phenomenon) without mass or load and is supposed to ensure the stability of this assembly: *gluons*..

**The interaction low electro** affects the **3 levels** of the material. It reveals reactions resulting from abnormalities in the atomic equilibrium normally assured by electromagnetism. Its range and intensity depend on the nature of the atoms involved, heavy or heavy. These fusion and nuclear fission phenomena lead to the disintegration and recomposition of atoms whose integrity was supposed to be assured concurrently by strong force and electromagnetic force. The liaison officers are <u>the bosons</u> that adapt their loads and masses (Z and W) to those of the competing particles and help to 'visualize' phenomena.

**The interaction electromagnetic** is practising in **atomic level**.. With unlimited wear, it neutralizes itself by counteracting the effects of gravitation at this level alone. This form of energy, combined with strong force, makes it possible to achieve the almost perfect balance of the atom. It mediates between gravity and strength. The liaison agent or vector is *the photon* who also has no weight or charge to be able to arbitrate in a neutral manner and exchange between the two symmetries.

**The interaction gravitational** as we have seen (Chap. XII) distorts space and acts without limits in Space-time. It is the result of the potential energy described above, carried by any mass. It interacts with any form of energy even without mass, such as electron agitators called photons. Any mass interacting with any other mass, only space-time occupancy by matter and apparent distances, determine the intensity levels of gravity that cannot be completely neutralised. It is particularly visible in **supra atomic level**.. Very discreet, the liaison officer involved would be <u>time in depression</u>.. And to delete time, is to delete the space .

While strong and weak electromagnetic forces are closely linked, gravitational force is at the heart of everything and conditions the other three forces through the notion of time. Too much gravitational force (this is in **SMBH**) as the absence of gravitational force (this is below Planck's revised dimension) causes time to stall and no interaction to become possible. In these two cases, we are in a "no man's land" that brings together general and quantum relativity.

# XIV <u>The Universe Suspected of Time-Space Confusion</u>

(At the risk of appearing somewhat confused on this point)

Time appears to be a norm for relativizing the interactions of matter within a Universe. This makes the concept of time difficult to grasp in the absence of this reference to matter.

On the other hand, linked to the notion of eternity, one could consider that a fraction of a second like a billion years/light are relative, not significant values. The same is true of any spatial measure against these 2 references of zero (0) and infinity ( $\infty$ )

#### The paradox of moving in space:

It is established that, in relation to an observer (regardless of movement), nothing is likely to move faster than the speed of light.

This also means that, depending on the observer's location, the time of an event may be perceived differently. Time, as a relative measure of an event, does not seem to be able to be calibrated in the same way here or there.

All this is true only for observers located (could it be otherwise?) in the observed Universe. This will lead us further to interpret differently the expansion of the Universe, whose horizon would likely be called to "forget", under the guise of this relativity, the presumed impassable speed/light restriction. Virtual distension of space would then act as a speed regulator just as this same deformation of space explains the gravitational rapprochement of massive bodies.

#### Paradox of space occupancy:

One could assume, on both large and very small scales, blank spaces of any particle or revealed energy, and therefore no interaction involves the notion of time - white holes, if you will. But they would then have no "life span" and could only be virtual.

On the other hand, the concentration of matter within black holes seems to exclude any presence of "vacuum". The material thus "frozen" cannot, for lack of free space, interact within it.

The absence of any revealed form of energy, as well as the total concentration of matter, would be out of the realm of time. Between these 2 extreme cases, spatial positioning and time measurements remain imprecise. For its part, the present is elusive between a past that no longer exists and a future that is still non-existent, even though it is so randomly foreseeable in the very short term. This means that the history of a Space-Time can be reduced to that of an ephemeral spark at the extreme, as much as it is insignificant.

Quantum mechanics seem to ignore the effects of this gravitation, and general relativity is difficult to cope with quanta theory; time is the problem. It must be recognized that our situation is comparable to that of fish in its jar, unable to imagine what is happening outside its ambient environment..

At the beginning which followed Big-bang, if it was given to us to be able to observe our Universe, this one would refuse us any revealing information of its future. We could not certainly imagine, in a very distant future, the formation of black holes or neutron stars and the effects of the gravitation.

Of even "teleported" in a cooled Universe, how could we, from an empty space of everything except from SMBH, imagine the genesis of our Universe. All the indications will have disappeared, no archive of past will remain.

Our current situation authorizes some "forecasts", it would already be only because it gathers the conditions convenient to the life. This alive body so becomes aware of its precariousness. And especially, a with difficulty observable past, allows us to go out into a future of closeness. But this vision remains on the whole, perturbed, to see deformed, what only by the ways of investigation. The access to the origin and to the term, if it is there, of the Universe, seems to have to remain an exercise of thought. The conditions favorable to the life on earth, will end probably before the true answers are found.

With a certain degree of cynicism, one could say that his formative analytical ability and intuitive logic operating in inference mode make man, the bystander who is abused by perceived phenomena, "deceive the eye".

# **XV** <u>How difficult it is to talk metaphysical</u> (Without falling into the spiritual trap)

Symmetry (energy, matter, Universe and anti-energy, Anti-matter, anti-Universe) should be distinguished from polarity (positive, negative or neutral charge attributed to particles by comprehension convenience). Force symmetry predicts two dimensions in the same space/time, which will lead to its deconstruction. The polarity of particles is observed within each dimension (Universe and Anti-Universe) and results in attractiveness and repulsion. Symmetry and polarity have in common, that they reveal a growing entropy parallel to a fundamental tendency to maintain the balance between symmetries and polarities. Everything will end as it started. What we conceptualize byEverything" in "nothing".

Our vision of a Multiverse Cosmos is improperly perceived in terms of time and space in a "suggested" present. How, in fact, can we make a concrete representation of a perpetual "growling" of "forces" in opposite symmetries that stand out and annihilate at the same time without any real occupation of space.

This vision of the Multiverse Cosmos may seem speculative and negative in many ways. But to refer simply to the indispensable tool of mathematics, it seems more abstract than any value less than zero or any square root value less than 0, or to say A+B B+A to take only these 3 basic examples often cited?

Geometry in its non-Euclidian forms would give space an asteratic curvature. The arithmetic, on the other hand, is meant to be dematerialized and open to not necessarily proven logic. If they are likely to be prolonged, these two indispensable components of modern mathematics, do not allow for a lack of means and on many simulations, consider what applications or evidence-based experiences are expected. Using mathematical modeling such as matrices, translates concepts and other abstractions into numbers and symbols. For basic mathematics, these pages of equations sometimes suggest a labyrinth of multiple entries, the result of which too often would be one of the access portals or lead to question-shaped answers. But no doubt, these complex calculations and equations, sometimes difficult to interpret and not always sure, have made progress. Moreover, without these advances, the thinking developed here would be nothing but fiction. For a relevant study of the quantum universe, black holes and the Big-bang, it appears that some of the equation cannot have the term "time". Without this fourth dimension of

time, it becomes necessary to conceptualize everything in a space that becomes only imaginary.

Like the first ships of the high seas to discover the great open ocean and unknown lands, the new technologies and computing power that are enabled by the development of computer software bode for serious advances in the knowledge of our Universe.

In all cases, these promising advances refer to the physical laws of our spacetime, which mainly consider spatial location and duration of events. Again, it is questionable whether physics, chemistry, mathematics and astronomy are sufficiently adapted and effective tools to decrypt the origin and foundations of our Universe.

This would mean having ad hoc means of access to an in-depth knowledge of both the infinitely small and the infinitely large, supported by increasingly improbable and prohibitive experiments.

Although speaking of infinitely large as well as infinitely small, there is a mismatch between the virtual character of particles in the quantum dimension and a multidimensional Cosmos without a spatial reality. The infinitely small as the infinitely large are, whatever the theme, relatively meaningless terms. The idea of **Nil** would not be out of the question.

Today, we believe we know the age of our Universe. However, we do not know the limitations and the real content (since it seems to be shifted in time, distorted by the effects of gravitational magnification and only within the limits of its visible horizons).

At the end of the day, for those who would reject the idea of cosmic nothingness, it just moves around.

Indeed, one can question what is at the origin of these 2 undisclosed mass "latent forces" in undisclosed opposite symmetries and without which this "state of the art" on the virtuality of events could not be written. Speaking of nothingness, does not evade questions and proposes constructed answers. However, this does not provide a satisfactory answer to the observer who was not supposed to exist then

Wouldn't a living organism, with the ability to think, somehow be the end of this? What we could define as an awareness of what makes our reality, our feeling. This is not lacking in claims and is consistent with the deep conviction of man to have his place at the centre of "all things".

It is forgetting when notre Universe, no more than our galaxy, and no more than our good old earth (the central point of observation, favoured by the power of things), cannot be considered the centre (necessarily relativist term) of everything.

If we want to remain unrealistic, it is better not to speculate more about this fantasy of an anthropogenic universe. However, we will come back to this in the epilogue.

# **XVI** <u>Topic drops in temperature</u>

(But is there any reason to worry!)

Temperature is only an energy measure whose intensity standard is the degree centigrade. Temperature is an intensity of interaction. It is only warm by reference to our feelings and especially our touch. The particles are neither cold nor hot, but it is possible to record temperatures according to the evolutionary phases of our Universe:

- Opening of Space-time (<u>maximum thermal energy</u>) disturbing "over" at a "not localable" point in the Multiverse Cosmos, theBalance of Balance cosmology.. The initial phase releases colossal energy (a break in symmetry).
- Simultaneously, there is no-mass energy in disproportionate frequencies (assumed to be much higher than the current detectable gamma radiation). This colossal energy by awakening "latent forces" cosmology has no more symmetrical meaning to begin with than precise position. This could be the famous Planck wall, or the prelude to the first wavelengths. This primordial energy, has both senses of symmetry. The concepts of speed, time and expansion at this stage prior to the opening of Space-time cannot be retained. Unstable because it cannot recognise its opposite symmetry, this energy will begin to 'focus' into primitive components of future particles. Time then starts and marks the starting point for an expansion of space. The "corpuscles", the foundation of matter, too evolutionary due to rapid drop in temperature, are beyond any description. This first manifestation of matter will eventually give birth to the elementary particles of matter, which will be quarks and leptons. and bosons considered to be the cohesive force of matter. But the 16 or 17 particles that have been proven to date, are they really elementary and not secretable? Some are particularly notable for their charge (electrons), others for their mass (neutrinos .), others for their charge and mass (quarks .), or for their binding strength (gluons ). or their ability to change state (photons). Some particles act as gatherers (bosons that have the peculiarity of being whole spin). Others would have an unfortunate tendency to want to separate (these are quarks and leptons with a half spin).

In addition, all of these constituents with or without mass and whose inventory is probably not limiting, are likely to move from one state to another without prior notice. At the current level of observation in the disproportionately small, nothing seems to be definitively established and perhaps Planck's units should be downgraded. But at the scale of a Universe, this point is probably not determinative for many analyses. Charge, mass, spin allow in a conventional way to construct a standard of the Universe, based on the moving speed of the photonic energy and the Planck constant. However, this model presents paradoxes and shortcomings that lead to some hypotheses in the context of this reflection.

- The energy released, in the form of an excessively high "amplitude" electromagnetic pulse, will propagate over considerable and particularly unstable frequencies before continuing to "entangle" for part in "prime corpuscles". <u>several billion Kelvin temperatures</u> will be acquired to create these primitive particles. These cannot be described as unstable and evolutionary in nature, soon to be formed. Therefore, there is no evidence that these particles will evolve. Clustered into protons and neutrons, they will form with electrons, atoms themselves grouped together into molecules until they form clouds of gas, planets and stars in all their diversities.
- This tear in theBalance of Balance cosmology cannot be described in terms of time, as the resulting very high temperature cannot be maintained. Also in the instant after the crash, <u>the temperature has</u> <u>already gone down</u>, marking the beginning of measurable time for the new Universe.
- From the beginning of expansion, simulating a Big Crunch primer, the particles generated by the Big-bang tend to congregate, like drops of water condensed from a vapour cloud. Gravitation is starting to manifest itself. Space-time reveals itself to us as a conflict between a Big-bang and a Big-Crunch trend.

The Big-bang consists of a <u>Widespread expansion into "star"</u> from the "point of initiation": the increasingly homogenous Universe grows and grows new particles.

The Big Crunch represents at all levels of *localized and relatively anarchic concentration movements of the material*, resulting in the formation of "lumps". Dispersed particles from all horizons of space-time

trigger the rotation (combined kinetic and gravitational energy) of these early aggregations of matter.

Gratation, electromagnetic and nuclear forces thus take place. <u>The</u> <u>temperature of the Universe continues to drop</u>, with hot spots.

- Cloud formation (gas) and then a variety of material assemblies. Heavy and light particles up to the state of energy without revealed mass (such as photons .) change state and assemble. The effects of heat and light are felt. At a later stage, the attraction force, upset by the apparent expansion it induces, brings together galaxies, most of the material generated since the Big-bang. Close-ups are made in the form of galactic clusters. Young black holes gather dispersed matter, far from what was the point of initiation. The gravity felt around a growing black hole becomes stronger. But with the apparent distance playing in the opposite direction, the speed of expansion does not seem to slow down. No-mass energy (photons) fills the Universe and delineates the inflationary perimeter of space-time. The temperature continues to drop.
- Galaxies, galaxy clusters and the bulk of dispersed matter, follow in the Universe converging and less and less interconnected routes, such as our rivers, their tributaries and all streams that feed them. The electromagnetic interaction that occurs in all these phenomena of matter, takes the same paths so traced, and the radiation induced by these phenomena propagates through spaces that appear increasingly distant from these convergence roads.

Like a 3 D spider web, extremed, these traffic lanes will then break into segments that will densify. These segments, the remnants of what were the paths of both expansion and gravitation, will continue in-house the process of assembling matter. Each of these concentrations will ultimately contribute to the formation of a SMBH.

Throughout this Universe, gravitation is localable in the form of a multitude of black holes of variable masses that appear to be increasingly distant from one another. <u>The temperature then becomes very low.</u>

• Within each SMBH without accretion disc, la temperature is lowered to the lowest. The Universe has become a supra conducting environment, with no possible energy flows.

Remember that this cycle is supposed to have no measurable continuity for the Multiverse Cosmos that we need to think about as a virtual concept is permanently unobservable.

#### <u>Time</u>an invention necessary for understanding, but a source of confusion.

Each observer brings with them a clock that is his or her own, is set only for him or her and is his or her signature. Also, stating that the faster you go the shorter the time, means that in the absence of an observer, the time is not equal for each space point. In other words, time can only be "local". Time then becomes the intrinsic property of each interaction, linked to its nature and intensity.

Time and interaction are two inseparable concepts reflecting the same phenomenon. This explains why:

• Absent any interaction: there is a measurable lack of time. So we're talking about SMBH:

Energy has become potential, sort of frozen. It fills the space of a horizon with black holes. The density conditions are present prior to the final collapse in which both symmetries will be found.

• With maximum interaction: time is lengthened to the extreme. So we call it the big-bang:

It is the awakening of the two opposing symmetrical forces that will generate maximum interaction with the appearance of the first particle embryos.

After SMBH and before the Big-bang, we can imagine a singularity described as a break in the cosmological equilibrium involving neither time nor space.

After the Big-bang and before the SMBH, we represent ourselves as a Space/time in time if relative that could be ignored in a space that will "dig" without delay (except for the observer we are) until erased.

To refocus on the human condition, one could also say that any Universe disappears at the same time as the precarious observer it hosts disappears. Whether we accept it or not, time also refers to our experience. We benchmarked it against the need to understand what we're seeing. Thus, within a fraction of a second and beyond a lifetime, time escapes us. This is why our report is invented and complex in time (past, present, future) in relation to the familiar notion that we have of a three-dimensional space. All you need to do is fast-track a few seconds of a 90-minute movie. The scenario that takes place on a shortened time scale is completely beyond our comprehension. A compressed time scale to the extreme, would make each Universe a Space-time soon to be created, soon to disappear.

# XVII <u>The terminal universe</u>

(But his descendants are secure)

Heat, light, gravity and radiation reflect what our senses perceive and are assessed in degrees of dangerousness. It is in this aspect that we are revealed, through more or less violent phenomena, all the interactions of the components of matter. But in order to dedramatize this analysis, it must be admitted that these indicators merely observe phenomena, purely physical and unconnected, which represent the evolution of the Universe we occupy.

To say that the Universe is cooled does not mean that the initial energy developed by the big-bang has volatilized. It is simply confined to the depths of matter within dispersed black holes. After the accretion disc, anything that has no mass (photons, gluons) changes state and disappears as such. The polarities are neutralizing. Whole spin particles (closures) combined "unnaturally" lose this characteristic. Only the potential energy of a neutral mass remains.

For a SMBH without an accretion disc, in a cooled Universe:

- the density increases to a nearly stable mass, while the gravitational energy "hollows out" more and more the space from which it appears to escape.
- the black hole does not recognize the space from which it comes and its kinetic energy has become potential energy.

Without contravening the principle of equivalence, combined kinetic and gravitational energy will lead the black hole to its critical energy and density threshold. Exceeded this threshold, all black holes in the same Universe will implode in a single, second-generation Big-bang, sort of filling the "cold depression" of a fading Space/Time. This singularity marks the annihilation of the Universe/Anti-Universe that configured Space/Time.

In these endless cycles, the multiverse cosmos allows the pendulum of any Space/time to rebound to 0. At every Big-bang, the past is erased and reconstructed in a present that will rebuild an ever-renewed future.

The Multiverse Cosmos cannot be described in terms of space and time, what appears to us to be an expansion of our Universe does not mean, however, that there can be any rapprochement, with another Universe. Each Space/Time has its own two-dimensional space. This excludes the idea of any neighbourhood between several Spaces/Time. We cannot talk about location

or speed of movement within the Multiverse Cosmos. This one-- escapes the laws that we have adopted for the understanding of our Universe.

It is clear that these considerations, which are out of the box, go against certain well-established dogmas. "But isn't this how science and knowledge have progressed?" (To refer to a well-known quote).

# **XVIII Why this title: the great illusion?** (Would they want us to take bladders for lanterns?)

The Multiverse Cosmos would like to define itself by reference to the concept, which is difficult to conceptualize, of infinitely great. In the absence of a time scale, any Space-Time "evaporates" within the Multiverse Cosmos in the very moment it appears.. Therefore, the reality of events has a vast illusion, except to accept the hypothesis of a 2-dimensional space/time.

At the other end of the scale, that of the infinitely small, what we call quantum mechanics only reveals what we can or believe to see, extrapolating at best. Indeed, our observation tools let us discover a vision chosen by the observer and specific to each type of observation.. Thus, the wavefunction is based primarily on notions of probability, and the EPR paradox is confusing in terms of particle speed and positioning, to name but two advanced concepts of quantum mechanics. Atoms (the first buildings of material) have a limited speed of motion. But particles, because they are virtual, can "communicate in real time" because of the "permeability" of the two dimensions in opposite symmetries of space/time. Particles can thus intervene in quantum mode justifying this EPR paradox and a certain principle of uncertainty.

To be more explicit about this difficulty of simultaneously identifying position and speed, remember that:

- **The position of a particle** can only be done by reference to other particles. With any particle moving, the 3 D position is given at a fixed moment **T T** on a fixed point **P P**. Time is disregarded and comparative distances are considered exclusively. **Space does everything.**
- The speed of a particle is also done by reference to other particles. Speed is the ratio: sequence of positions / time elapsed. Excluding the 3 D space, the trajectory is considered exclusively on a linear axis of travel, it is time that is (almost) everything.

Space and time blend, but do not make it inconceivable to know both of these information, namely position and speed, simultaneously.

Most importantly, the uncertainty principle reveals our inability to gather information that is not distorted. This is because we should take into account the observation conditions that disrupt whatever the nature of the observation, the behaviour of the particles observed. The inability to simultaneously position in time and space and without affecting what is happening on the "subatomic scale" is due to the fact that our reality cannot be corrected from collateral effects to observation.

Perhaps we should approach this reflection in a less "conventional" way and speculate squarely on hypotheses that may seem foreign to a certain pragmatic certainty. To that end, we should consider our reality as an illusion based on an interpretation of what our senses perceive. Nevertheless, it is this same illusion that builds us.

To illustrate this point, imagine a super computer, a robotic copy of the human being. This machine would be connected from sensors to the same as our senses:

- A radar/microphone: to analyze sounds and smells (hearing, nose)
- A thermometer: to record changes in temperature (touch)
- A scale: to compare masses and densities (gripping)
- A stopwatch: for the chronology of events (acts and gestures)
- A photoelectric cell: for colour and distance analysis (eye)

All these sensors transmit their data to a central memory that will interpret them without the slightest subjectivity. Subject to a particularly elaborate mathematical processing and prerecorded rules and assumptions, the information will be well decrypted, but in what form? In fact, virtual waves and particles do not really have colors, emit sound, smell, or feel cold or hot, change mass and density, transform speed of motion into mass, and free themselves from distances by relating time.

The computer should therefore interpret differently from its designer. It captures, indeed, energy flows that manifest themselves to us in forms that its unpopular software is unable to interpret. How can it build a coherent model from such raw data?

Nothing seems practically possible for the recorded logic, which is his, imperfectly copied on our own. A computer that is particularly powerful might make us suspect a pseudo full reality, inconsistencies and paradoxes. But could he describe to us an environment in search of balance at all levels in the greatest apparent disorder in which we feel we exist?

This does not, however, correspond to the idea (anthropogenic principle, many times referred to) that the Universe would be the medium specifically and exclusively intended to enable us to become aware of it. To claim that man, who is without a future, can justify this complex mechanism, would lead one to imagine a "supreme will" that would instigate this plan. This conjures up an old fantasy that even some scientists believe in because it explains, reassures and values any life with a central nervous system that makes it wonder why it exists. In humans, it is a constant that feeds its unconscious.

At this stage of reflection, neurons may tend to drop out!

### XIX <u>Our Universe is discreet about its age!</u>

(But these spawners were not really old)

Whether we look at what was the starting point of the Big-bang or at its opposite and therefore in a direction that we cannot determine, the Universe is showing accelerated expansion. But we could also consider that time is contracting. This implies more time to reach an observed point. There are some indications that the later the observation, the higher the age of the Universe. In any case, on the unobservable horizon of a cooled Universe, the notion of time would be no more meaningful than it is in a SMBH. But we are talking about a very distant future.

As an observer, and using the best tools at our disposal, our Universe would be 13.7 billion years old to 15 billion years old for the most optimistic. But if we succeed, as has recently been the case with satellite instruments, in pushing the limits of the observable, it may be that our Universe in its observed form of expansion, more relativist (in velocities and axis of material movement) radial (see illustration) take a serious beating of old. It could reveal an unsurpassed age based on the figures used by most of the scientific community. This does not contradict the seemingly accelerated remoteness of galaxies. But it would then continue on axes that were displaced from the inertial starting configuration. This would explain that there are some inconsistencies in the analysis of remote-origin spectra (redshift) and from previous computational assumptions based on the fundamental Friedmann equation which predicts a homogeneous and isotropic Universe. But above all, we do not know what the known portion of our Universe represents in relation to its totality; can only be a very small part.

We gladly think of ourselves, the Big-bang as the explosion of a very large seed dispersing, into stars, contained and containing along the most direct trajectory, that is, that represented by rays from the point of "firing" to all directions of space. This is certainly true overall for the very first moments of Space/time. One might think that this logic is less so in an aging Space-Time. Matter through its interactions induces disorder and increasingly curved trajectories. **Since relativist expansion is called to become progressively more tangential,** (trajectories that follow the curvature of the horizon) without slowing down, allows black holes to merge.. These are almost the only possible events in this cooled "spherical belt" made up mostly of SMBH.

The light year is the standard cosmology measure. The problem is that it refers to the idea of time and space, two concepts that are taken separately cannot be representative of an event.

If the standard cosmology says that nothing can move faster than the photon, it must be pointed out that it is relative to the source that emits it and to the observer. Without this double spatial reference, this limit (e) is emptied of its meaning.

Thus, the history of the Universe began with a phenomenon where reference to velocity-light has no meaning. The apparent rate of expansion will be slowed down rather quickly, by the decoupling of energy/matter, which therefore determines the speed of photons. This decoupling phenomenon which restricts the opening of space in its early stages will lose intensity in the inverse ratio of the dispersion of the primary energy (overall as much energy, but which loses in frequency). As a result, light velocity is expected to change downwards in an inverse relationship to the "acquired volume" of entanglement. The resulting space depression creates the illusion of upward expansion.

This explains that the black holes that will form the horizon of an ageing Universe seem to be moving away from one another at supraluminic speeds.

In a Multiverse Cosmos which excludes any reference to time, it may seem illusory to want to predict "an end of life" to our Universe, since one accepts the idea that every Universe is a singularity too short to even be described as ephemeral. But for the observer it contains, the Universe seems to fade away at every Big-bang, leaving no trace of a past without cosmic reality other than through a renewed Space/Time.

One question that sometimes leads to another: where is the observer in our universe? The only thing we know for sure is that we don't fit into the central part of what was the original singularity. We don't occupy the black hole belt any more of what an aging Universe would be. Such a Universe would be densely unequally distributed and depopulated in what was its central part, in favour of a horizon that is less and less dispersed, in an unrecognized vacuum space.

# XX Exploring fiction in the prohibited space of a Universe (Or how to push the boundaries)

The laws of physics are defined by the domain of observation and the scale considered - quantum, atomic, stellar or cosmic.

Below the revised Planck scale, mass abstraction betrays the absence of gravitational energy. The infinitely small seems, from this point of view, quite the opposite of a SMBH. The fiction developed in this chapter projects us to the depths of the infinitely small, below Planck's units. It does not change anything that has been developed previously. It is based on a particular logic that is supposed to link with the Space and Time logic that governs our Universe.

# **<u>1-The notion of Space</u>**

Our vision of an expanding Universe gives it a dimension that necessarily places it between the smallest known constituent of matter and its observable horizon: <u>This is the idea of a circumscribed space neglects to take into account what is not being observed.</u>

- So information that would be essential to us cannot come to us. Others come from the past, distorted and therefore difficult to exploit. Beyond the limit of the visible, everything becomes a matter of speculation. More rightly, pretend to go <u>"beyond" the unobservable real horizon, can only be fiction opening up on the multiverse Cosmos.</u>
- Presumably the same is true in the depths of the smallest particle ever imagined. With quarks, lepons, boons: we are once again on the edge of the observable. At this stage or at a more advanced stage that has yet to be overcome, ambitions to go further would be like pretending to go beyond the limits of the observable Universe. Information becomes inaccessible and seems to mark this unobservable level of the infinitely small, an insurmountable boundary between our space-time and the multiverse Cosmos.

Want to go <u>"below" the smallest unobservable constituent of what</u> <u>makes matter, can only be fiction opening on the multiverse Cosmos</u>

"Below" as "Beyond" takes us back to Multiverse Cosmos.. So how do we reconcile this fiction with our "reality"?

In an atomic nucleus, strong interaction (QCD) is the interaction between particles of similar or opposite polarities (the unfathomable quarks) with energy related to their movement. Glutens, which are by default assimilated to particles, are only there to help us imagine these power relationships in a relative but fundamental balance within and between protons and neutrons.

The other question is whether the term particle is appropriate, in terms of those entities that are classified as quarks, leptons, and bosons, and whether we should be moving away from that materialistic view that we tend to maintain on the quantum scale.

The question that persists is what really governs the cohesion of these pseudos particles, avoiding confrontation?

In this regard, string theory offers a rather relevant approach. It looks more at the "forces" that connect what we define as particles than what they appear to be. This is justified by the fact that what we define in terms of mass (force intensity), load (globally neutralized polarities) and spin are only energy concentrates without physical reality. These terms are dedicated to virtual particles. These are each expected to occupy a defined space that cannot be simultaneously stripped by any other particle.

These innumerable particles that store potential energy, are the holders of gravitation. They impact their environment as an acoustic enclosure would. We could compare that to the cricket blight. Nearby, this noise is not noticeable. But it will become even stronger because the locust population will be large. This confused brouhaha will therefore have an even greater reach.

As they were puzzled, the primordial waves formed, as it were, knots of energy. These particle-like nodes represent assembly points. We could compare this to the attachment points of various caliber links, in a tangled web of stranded chains, particularly elastic. The particles are represented by the innumerable points of contact between the links. These links, which do not have the oblong shape, can open, assemble and close as many interactions as possible.

Such links, which can hardly be compared to ropes, could, for lack of a better word, be defined as related "D-branes", to use an already used term, or "links/branes". These which have no more dimensions than the quanta of which they are the frame, distort Space-time. Without physical reality, they represent strong, electromagnetic (EDQ) and gravitational interactions. It could also be said that this link/Brane term is an artifice used to clothe the interdependencies of virtual particles. This viewing of energy in the form of assembly links, crossed at all levels and present in symmetry in both dimensions of space/time, should be part of general relativity.

These links/gills overlap, mingle, interfere, superimpose. They can't handle, they make the energetic "fabric" that binds space-time particles together. These links/branes would be masterpieces not recognised by the gravitational effect.

All of this may seem speculative, but it is not more speculative than any other exercise of thought not formally confirmed by verified observation. But in quantum mechanics, brain cogitations on the unobservable, can only make assumptions.

In the same way, any theory that deals with the unobservable beyond the horizon of a Universe would be only probability without more.

The Universe could be compared to a funnel where the upper part widens more and more and the lower and sharper part of the funnel ends up on the same plane as the upper part. Over time, the cone becomes a disc that has the force of stretching and flattening, will fade from the landscape.

In this scenario, the multiverse Cosmos no longer really looks like an expanding soap bubble foam. It could be described as a hodge-podge of numberless links/brans, occupying all space/time and validating the virtual character of the misnamed particle.

# **<u>2-The notion of Time</u>**

Our Universe has had a start (Big-bang) and will be erased (final collapse of matter): <u>It's the idea of a finite time</u> who therefore cannot explain what preceded and what will follow:

By the same logic, it would seem quite possible to travel in the past and in the future. This conclusion, of course, is based on two assumptions based on general relativity:

• <u>Travel in the future:</u> We know that the stronger the gravitation, the slower the time for any event that is subject to it, compared to any other event that is not affected by the same gravitational force. So anything inside a black hole is definitely trapped by gravitation. Time has come to a halt and an observer who hides from a black hole without having aged would discover a Universe that is several million or billions of years older. We are talking about a trip in the future.
• <u>Travel in the past:</u> A Big-bang erases all SMBH from a cooled Universe to open a second-generation Universe in the same expansion and development process. The observer who survives (which implies a health test) would witness a "renaissance" of his Universe. He would be back in the past.

## XXI <u>Disclaimer</u>

(Any similarity to reality would not be purely coincidental)

Everything starts with the idea that there is an infinite amount of space/time that recovers and transfers energy without mass, without regard for distance and time.

Every Universe and every particle that occupies it represents the quest for energy in search of its symmetry.

This quest, which manifests itself in the effects of attraction and dispersion, seems to us marked by uncertainty and disorder.

All Space-time is born and disappears into the "indifference" of **Multiverse Cosmos.** This reductive vision of our Universe, which excludes all external observers, can therefore appear to us as the opposite of our reality.

The notion of infinity that we have invented should never logically be retained outside Space-Time because it predicts a certain idea of space. The notion of eternity (no limits due to the absence of past and future) should not be discussed further as it foreshadows the idea of time.

We must remember that we discover the Universe through direct and especially instrumental observation. Based on these observations, there are a number of scientific findings. These observations, however, represent only a glimpse, polluted for the most part, by the gravitational lens effect, of the detectable confines of our Universe (in the form of radiation, among others). In this way, we record events from a very distant past without any real connection to our present and, moreover, distorted. Another illusion!

This reflection, inspired by a reality which is trivially close and yet elusive in its dimension, calls for controversy.

Theories such as multiple worlds "bound" by strings, or "worm holes" authorized by the deformation of space that would allow travel out of time, are more seated? Although black holes may in some way allow the transfer of energy out of time to other space-time (this is the assumption here).

The very complex theory of superstrings uses mathematical subtleties that make it excessively probabilistic. Attractive but intellectually difficult to access, string theory in its version "**theory of the whole**" (which is not the link/bran developed here), is also discussed (open or closed ropes, branes of different types, number of dimensions to be considered .).

Any demonstration is based on confirmed observations and verified data. By relying on proven logic, the conclusion becomes difficult to challenge.

The path taken in this reflection, conceived more as a collection of ideas, is not exactly in agreement with this principle. But observations are limited, mathematical means do not seem to be adequate, neurons are insufficient in number and logic sometimes loses its Latin.

These considerations, which are largely speculative, do not in any way conclude this theory of "**Everything in Nothing**It's a rather frustrating way to end, without really finalizing it, this bet on the foundations of the universe. Each person is free to confront this freedom to think about his own views of the mind, for lack of deep convictions.

How many assumptions have already been considered to try to explain such an inaccessible environment? Without answering it completely satisfactorily, this reflection, which may seem somewhat surreal, remains in agreement with many scientific achievements. It seems, beyond any certainty, on many points to be able to face our observed reality. But who can claim to know the truth on such a subject?

Science and its many applications provide a number of landmarks to our way of thinking, if only in terminology and database. Without rivalry, the imagination brought some innovative ideas or suggestions to the research.

Knowledge in this area is increasingly abstract and sometimes irrational. It is moving further and further away from our ability to understand and into a narrow circle of specialists. Even for them, a comprehensive and definitive response on the nature of the Universe seems far from being approached. It is easy to imagine the astrophysicist, as a prospector of unknown land, laboriously reviewing his plans and plots according to the pitfalls. It's hard not to have your head in the handlebar when the road is still to be traced! Perhaps this is why many famous physicists have been able to make a few fixations on prior learning and to reject, in the first place, dissenting theories that questioned their previous advances. All indications are that the next great discoveries will refer to a physics of another "nature". New ways of thinking will likely mark humanity to come by stripping it, one can hope, of a profusion of predetermined ideas.

The imagination, with as much respect as possible for a so-called pragmatic logic, can, without abandoning itself totally to fiction, break free from many codes. Einstein, Dirac, Heisenberg, Bohr, Wheeler did not lack imagination, quite the contrary. Without this quality that made them think outside the box, the use of mathematics would not have given them much support. Some of these physicists, who were primarily visionaries, did not have, it is said, any exceptional knowledge in this field. Their merit, too, is that they have relied on existing theories, whether they are subsequently proven or disproved. There is, however, a great temptation to embark on the path of philosophy, which seems to be more of a meditative form of thought and detached from reality. It is hard to ignore.

# XXII <u>Critical Analysis</u> (but not necessarily objective)

#### **Positive Points**:

- abandonment of the postulate, without any basic logic, of a creation from nothing.the starting point for this reflection)
- the aesthetic of the theory, which is based on a contrasting balance of opposing symmetries and a form of unification.
- Rationale for energy/material interactions
- redefined notions of infinity and eternity.
- rather "coherent" model of evolution and creation of our Universe
- man's place, as for the rest, detached from every divine intervention
- references to certain accepted assumptions or physical data
- our expanding Big-bang is no longer the unexplained central point of a mysterious container (as Earth was perceived before Galilee)
- Alignment, of the 4 forces considered fundamental in an All in Nothing theory.
- "reconciliation" of quantum mechanics and general relativity

### Points to be restarted or insufficiently developed (and comments):

- symmetry break in a Cosmic Balance (however, the notion of particle symmetry is not new)
- **the Cosmos**Compared to "nothingness"! This means preventing confusion between hard-to-imagine and inconceivable
- a speech that may appear, by place, somewhat hermetic or negationist (these points are certainly worth exploring or reformulating)
- limited references to mathematical data (but this science that provides sesame for many hypotheses probably has its limits and is also valid only for the Space-time it refers to)
- number of unproven claims (but is everything demonstrable?)
- ° Unconnected, closed universe (but so-called open expansion)
- frequent use of the conditional (one cannot be too cautious on a subject that is barely settled, despite the most recent advances)
- limited references to particle physics and Astro mechanics (tools to be developed, but also to make simple!)

It is important to remember that a theory can only be validated if it is proven experimentally or scientifically. On the other hand, a theory is only really debatable if it is proven wrong. In between, one can only doubt, but one hopes that the uncertainty will be lifted and the reflection confirmed or invalidated...

# **XXIII** <u>Pseudo philosophical considerations</u> (An heresy that stirs debate and disturbs understanding)

Some of the names given and convictions, a "god", perceived by some as the creator of the Universe, remains an invention of the spirit. How to understand, in fact, the existence of a virtual entity that would have imagined such a "fiction" from scratch. A divinity of nothingness is nonsense from the very notion of nothingness. The big flaw in cosmology, in its non-anthropogenic sense, is that it promises nothing. Not particularly stimulating for human morale and image, so it doesn't appeal any more than that.

Reflection conducted previously can also be considered metaphysical speculation aimed at challenging the errors and aberrations of an obsolete past. It does not claim to be true. These transgressions, presented in the form of a bet, can no doubt clash with a scientific mind convinced of the preeminence of mathematical models on a certain intuitive logic. But how many theories, first of all have proven to be true. Let us recognize that the increasingly complex and expensive tools that have validated many assumptions are beginning to reveal their own limitations. Furthermore, it is not clear that our scientific methods such as observation materials are suitable for the "study" of a supposed Cosmos multiverse. So the question that could be asked to an enlightened and open mind, familiar with these questions on a subject where, it must be acknowledged, so many unknowns remain, would be:

#### What ideas developed here deserve endorsement and why?

# Conversely, on what points should this theory be corrected or invalidated?

That, in the latter case, would mean that the answer is elsewhere. "Errare humanum est, perseverare diabolicum," they used to say wisely.

Any comments, objections, or controversies would feed into that reflection, or remove all or part of the proposed answers.

If asking questions is the nature of the conscience; would it be the beginning of a form of intelligence? In all cases, common sense and intuition are part of the choice of possible solutions.

# <u>Épilogue</u>

## (Where not to be confused: egocentrism and megalomania)

More than 7 billion people on earth today and how many generations past and future. Of all this population, which is constantly changing, marked by growth that is not really controlled, only one, if not exclusively, holds our interest. Unique in the multitude and unavoidable, our ego ("I think so I am") has the foresight of a world that, like the iceberg, only reveals its deceptive and visible part. Hence this reflection built on the perception of an environment that hides behind so much opacity and justifies the repeated use in astrophysics of terms such as black, dark, discreet, hidden, uncertainty, non-locality.

At the end of the day, many questions appear to remain unanswered, including:

- What can lead one to believe that this conscience, the one that each of us possesses and that inspires this curious idea of mind or soul, can be freed from all physical dependence; if not the visceral hope of a certain continuity to this very special phenomenon of life.
- Why, through experience, is this perception of a tangible world attached in a non-exclusive way to a single thinking head, a unique "exemplary" that each person carries on his or her shoulders?
- How can we explain that this consciousness so scattered (a whole humanity of thinking heads) and which should be that of the same reality, is so difficult to share? A universal form of telepathy (a brain Internet) would improve our ability to understand and would no doubt develop empathy and knowledge. Fantasy or famous fair illusion? One can always dream of other modes of transmission and of thought support than verb and writing.

In any case, this belief that we are Unique means that we have to put ourselves at the centre of everything.

We are all spectators and actors, but each remains the sole judge if not arbitrator in this role-play. This means that each of us, in our deep conviction, can say to each other:

" The Universe exists only because I conceive of it, and I understand it because I exist in the short period of time that provides the conditions for life, between Big-bang and erasing my Universe.

This leads me to believe that there is probably nothing more without me that represents this awareness of a reality that I have forged. On the other hand, I can't help but consider myself an integral part of this same Universe." "So I will come out of something that I designed..." *Look for the fault!* 

Let us now develop this idea on another scale. Let us consider the Multiverse Cosmos as infinite Universe, in infinite dimensions, without limiting ourselves to the present moment. How many planets like ours, what we call exoplanets, have been able, can, or will be able to develop life at at least as advanced a stage as we know it?

infinite possibilities become in terms of probabilities, a certainty. This consciousness developed by living, thinking organisms, should be statistically present, in numbers on other exoplanets, as in other moments past, present and future!

If so, can it be considered **what I am**, may exist=in any other Space-time and at any other time. The physical appearance of another form of life does not matter much. Why should we not be, in thought mode, duplicated indefinitely within the Multiverse Cosmos, seeking the same answers.

This script could be likened to a 3D "smart" puzzle (it exists), fragmented to the extreme. But each think piece would represent a player who does not know the position of others and the state of play.

Any communication that turns out to be prohibited because of distance and time delay, what would be the purpose of this "universally" fragmented consciousness? The answer is in the Multiverse Cosmos, and therefore in the question.

This concludes the drafting of a metaphysical concept that may be perplexing. It can be a replica to all these religions that are abusing us by pretending to satisfy our ignorance. We understand that this parenthesis may lead some to think of cosmology according to a logic that would explain the cause by the consequence.. This anthropogenic principle is clearly a backward problem and an old fantasy like the world.

Of course, it is not forbidden to think that all of this is akin, as a forerunner in the chapter, to a form of philosophical therapy.

But who knows!....

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Your criticisms, controversies, corrections and other comments are welcome and expected. Thank you for taking the time to read me.

#### Short answer: 12 key ideas summarized

(In red, ideas that may be disruptive)

#### The multiverse cosmos

Let be two "latent forces" of "symmetrical and inverted" natures that may appear, in the form of Space-time. These two forces have physical reality only considered separately and can only be involved by confronting their opposing symmetries. They are meant to "coexist" and not interact directly. This "concept" used as a cosmological equilibrium, which can be described as a continuum of fractures and reconstructions of symmetry, is not recognised outside Space-time. The multiverse Cosmos is not concerned with quantum mechanics or general relativity. Beyond" the unobservable real horizon, we are in the multiverse Cosmos fiction. Below the smallest unobservable constituent of what makes matter, we find ourselves in the same multiverse Cosmos fiction

#### **Space-time**

It is the result of a break in this undisclosed symmetry representing the Cosmic Equilibrium. Energy and anti-energy that "occupy" space/time is an intelligible transposition of the virtual latent forces that define the multiverse Cosmos.

Time is a concept that is traced back to space and calibrated by man in terms of how he perceives his environment. The idea of time distinguishes itself from 'Something' and assumes the idea of symmetry on which the concept of space/time is based with two dimensions of opposing symmetries.

#### The Big-bang

A singular "no" event (since there is no reality outside itself) that will cause all the black holes in the horizon to collapse into a single point that cannot be located. The space will disappear over time when the super-massive black holes (SMBH) are no longer dispersed. The Big-bang "awakens locally" the symmetrical "latent" virtual forces, prefiguring the energy - material and energy - antimatter couple. Each Universe is supposed to have two hidden dimensions. Symmetry and anti-symmetry co-exist discreetly in one dimension. The so-called dark matter is indicative of this "split" universe, as is dark energy.

At a large SMBH gathering, a Big-bang will generate a new Space/time through a final collapse.

This break in the cosmological equilibrium generates an exceedingly high energy wave, a sort of photon concentrate (pure energy) that has no mass and does not occupy space.

#### After Big-bang

The interconnection of waves, with excessively high frequencies, will generate and transmit the first embryos of matter. This will disrupt the muzzle release speed creating "plugs" of energy in a relatively "homogeneous" type of plasma. These knots, particle embryos, represent assembly points. Highintensity waves, overlapping and overlapping, create frequency peaks and configure Space-time.

The entanglement/matter or decoupling, which is the process of making matter, will decrease over time, correlated with the decrease in diffuse energy intensity.

We could, from another point of view, look more at the "forces" that connect misnamed particles than the latter... Any Space/time could be described as a hodge-podge with no numbers. In this scenario, the multiverse Cosmos no longer really looks like an expanding soap bubble foam.

#### Match material and energy

The material thus creates from high-energy waves, preserves in a twodimensional space/time, the "memory" of its sense of symmetry. Like wave/corpuscle duality, matter and frequency are two different terms to evoke a given level of energy.

In the intimacy of these early constituents, matter seeks its symmetry in the "ethics" of cosmic equilibrium. The equilibrium will be achieved using reverse polarity "wave particles". This bipolarity is expressed through the four forces considered fundamental to our Universe. It stands out from the symmetry that characterizes the undiscovered latent forces of the multiverse Cosmos and is found in both dimensions of the same Space/time.

Particles would only be the virtual result (a kind of clothing) of the intimate interactions of a symmetry unique to each Universe. The concept of virtual particle has no other purpose than to help understand this paradigm.

Particles and antiparticules that share the 2 virtual and symmetric dimensions of the same space/time, have no phenomenological existence

Not being able to discern the interactions that link these two dimensions in opposite symmetry leads us to describe these interactions by default in terms of uncertainty and probability. These two dimensions "adapt" their symmetries to communicate, in a form that may have been called the tunnel effect.

#### The Cooled Universe

Quantum strata of space interpenetrate into each other without mixing. It can be assumed that a slight "lag" due to a synchronization defect between the two symmetries prevents them from annihilating. Interactions between them are limited to the exchange of information that contributes to the gravitational effect in shared time.

These two dimensions are configured to the smallest of the quantum scale and will ultimately be in the intimacy of a SMBH where matter and antimatter will eventually annihilate in a second generation Big-bang. . We would be unknowing, simultaneously, and not discerning what distinguishes one from the other, in both dimensions. Increasingly dispersed, photons will become less and less energetic. The temperature is bound to fall inexorably. This phenomenon is signalled to us by a microwave background scattered from the farthest part of our observable Universe. In a cooled Universe, these energy-deprived photons will reach inordinate radio wavelengths. The space that is dug in at the extreme will thus drain all forms of energy. However, the entire energy of a Space/time is not lost. In the end, all this energy will be recorded in SMBH without polarity. This is the ultimate step before the collapse of Space/time.

The physical laws of our standard model then become obsolete.

#### Gravity, kinetic and potential energy

In a black hole, deconstructed atoms no longer have kinetic energy and the potential "alternative" energy has no ability to reframe. The energy is maximum and disorder is out of place.

During the final collapse, matter and antimatter will annihilate, making an apocalyptic depression by annihilating the dimensions they "occupied".

The Big-bang will fill this depression by revealing the 2 latent forces of the multiverse Cosmos. This 'awakened' kinetic energy by the Big-bang effect will appear to have substituted for the potential energy of SMBH.

Quantum overlay removes distances and removes time. It stems from a "permeability" chosen between the 2 opposite dimensions that define space/time.

It is the polarity adjustment measured in terms of mass that achieves balance in each symmetry. The kinetic moment (spin, orbit and velocity) of the particles allows the fine adjustment of this relative equilibrium.

Some permeability allows particles without mass (photons) and possibly those with very little mass but no load (electronic neutrinos and can be bosons  $Z^{\circ}$ ) to communicate without delay from one symmetry to the other.

Photons, gluons and likely neutrinos represent the energy exchange interactions between the constituent particles of the atom for each other and within its nucleus for the other.

Neutrinos from beta radiation produced by nuclear fusion will allow a fine adjustment of the load parity by generating a mass supplement. On a more general level, masses adjust to the configuration of the Universe and its evolution in terms of space entanglements, groupings, mergers and depression. Due to a lack of historical data and therefore a decline, this phenomenon is not verifiable.

One can imagine space-time as a tangle of quanta of space occupying the two symmetrically opposite dimensions of this space.

It is this unnatural neighborhood, of quanta bound in the same symmetry, that will entangle these primordial photon-type corpuscle frequencies, which will evolve into increasingly massive atom particles and structures.

The "discrete", inter-dimensional interactions of matter and Anti-matter become all the more intense as particles and antiparticules have less and less "space" in their own dimensions. This gives the illusion of longer distances and a contraction of time. This "osmotic" phenomenon, in a way, affects our observation of the gravitational effects, but its source remains indistinguishable.

E=mc2 would then become E=m for a formed black hole.

Beyond a critical threshold of density, because there is no space in their dimensions, a Universe that is anti-universe will annihilate itself. Space and time fade in an implosion of space-time converted to SMBH.

When the super-massive black holes in a space-free horizon collapse, the Big-bang will perpetuate, as it were, a "breakthrough" in the multiverse Cosmos. This intrusion will differentiate, without location, the two latent forces lacking physical reality.

Gravitational force will be built with the first atoms. The "materialization" of the particles is an artifice that is likely to better capture the complexity of these phenomena. Below the revised Planck scale, the mass failure betrays the absence of gravitational energy. The infinitely small seems, from this point of view, to be the opposite of a SMBH.

Not having a physical existence, other than for himself (and also for the observer that we are), the new Universe will engage in a planned process of deconstruction in its most enduring representation. This is the mass dimension, which begins at the atom (the proton's life would be, except for a nuclear accident, comparable to that of the Universe). This "deconstruction" process is associated with gravitational strength.

The interstellar environment of space/time is "hollowed out" giving the illusion of dispersion that actually brings together matter. Containers that gather all the energy from a cooled space/time will be black holes. From elusive Quantum Spaces, a new Space/Time will develop, in turn, into an unknown erasure of the multiverse Cosmos.

#### **Black material**

The addition of masses in a system is always well below the total mass estimated from the gravitational effect of the system. This suggests thata discrete but consequent interaction between the 2 symmetric Universes of the same space/time, impacted by "osmosis" gravitation. Its source remains undeniable. From atom to galactic clusters to pulsars (over 1,000 turns/second), it appears that the "clock" mechanics of the material increase discreetly (as an unobservable cause) the gravitational effects.

#### **Black energy**

Some of the primary energy that was not impacted by decoupling retained the muzzle velocity. Every Space / time thus feels the gravitational effects added by all the others. This "in-draft" participates in good part, in the illusion of expansion of the Universe. This is not contradictory to the idea of space in depression which characterizes our Universe. Any particle is necessarily associated with a wavebeam and any wave can interact with the appearance of a moving particle. But don't know when and where, make it a virtual event.

A void of every physical reality; this is the very definition of virtual. But that's pretty much like the interpretation we have of nothingness.

A Space-Time is a "interstellar medium" full of radiation or particles called virtual, as long as everything is brought back to the quantum dimension of its basic components.

Space/time is the story of a substitution: converting kinetic energy into potential energy.

The kinetic energy from the Big-bang represents the opening of time. It is scattered. It is the apparent expansion. Potential energy is deflationary and aggregates. This is the observed gravitation. In an equivalency principle, conservation of energy in any form is ensured.

Free of mass and load; photons, gluons and other bosons, force mediators infiltrate Universe and Anti-Universe. The same may be true of neutrinos.

So one would assume that— The expansionary and gravitational effects that will lead to the collapse of space/time are largely explained by discrete interactions that communicate the two opposite dimensions of space.

#### **Apparent Expansion**

Movements of masses become progressively random and tangential and increasingly disrupt this initial expansion "into a star". Potential energy by substituting for kinetic energy changes the topography of Space-Time and gives it "energy relief". Intertellar space loses occupancy with the consolidation of matter, giving the impression that distances increase. SMBH collapsing on their own, "digging" space inexorably. Time is slowing down.

The potential energy reflects the degree of agitation of atoms with particularly high frequencies (oscillations). This gravitational force, which predetermines all the others, changes the space/time by reducing the first and compressing the second. It is not matter that attracts matter, it is the quantum vacuum that brings it closer.

For gravitational force, the liaison agent is time in contraction.

It may be that our Universe, in its present form of apparent expansion, more relativist (in velocities and axes of movement of matter) than radial (see illustration), takes a serious beating of old. With the prospect of becoming progressively more tangential (trajectories that tend to follow the curvature of the horizon), expansion will promote the merging of black holes. This expansion is an optical effect given by depressed space.

The history of the Universe began with a singularity where reference to velocity-light has no meaning. It will end up the same way. The decoupling of energy/matter that marks the opening of time will determine the speed of photons. As a result, light velocity should change downwards in an inverse relationship to the "cumulative volume" of entanglements. This means that the black holes that will form the horizon of an ageing Universe seem to be moving away from one another at supraluminic speeds in an unrecognized vacuum space.

This "decoupling" phenomenon, which inhibits the opening of space at its beginning, will lose intensity in the inverse ratio of the dispersion of the primordial energy. Energy is conserved but loses in frequency.

#### Symmetry

The symmetry (energy, matter, Universe and anti-energy, Anti-matter, anti-Universe) of polarity (positive, negative or neutral charge) attributed by the convenience of understanding to particles should be distinguished.

Particles, because they are virtual, can "communicate in real time" because of the "porosity" of both dimensions in opposite symmetries of space/time. This allows particles to intervene in quantum mode, explaining the EPR paradox.

#### **Big-bang, black holes and symmetry**

Between the final collapse of the SMBH and the Big-bang, we can imagine a singularity described as a break in the cosmological equilibrium involving neither time nor space.

After the Big-bang and before the SMBH, we talk about a Space/time in time so relative that it could be overlooked in a space that will "dig" as much as it seems to "expand". All SMBH in the same Universe will implode in a single, second-generation Big-bang, sort of filling the "cold depression" of an erasing Space/Time. Past and present will rebuild in a renewed future. Observer surviving the Big-bang would witness a "renaissance" of its Universe.. He would be back in the past. In the absence of a time scale, any space-time "evaporates" within the multiverse Cosmos may be considered in the instant it appears

Each Space/Time has its own two-dimensional space. This excludes the idea of any neighbourhood between several Spaces/Time.

#### Observations

We do not know the age, the limits and the real content of our Universe. It appears to us to be shifted in time, distorted by the effects of gravitational magnification and only within the limits of its visible horizons. A Universe observed from a photonic emission that comes from its past only makes it possible to determine imperfectly how much mass it could have at a later time. Our observation tools reveal a vision chosen by the observer and specific to each type of observation. The uncertainty principle, for example, reveals our inability to assemble speed and position. We should take into account the observation conditions that disrupt whatever nature of the observation, the behaviour of the observed particles. Our reality must be corrected for the collateral effects of observation.

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