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The Geometry of God

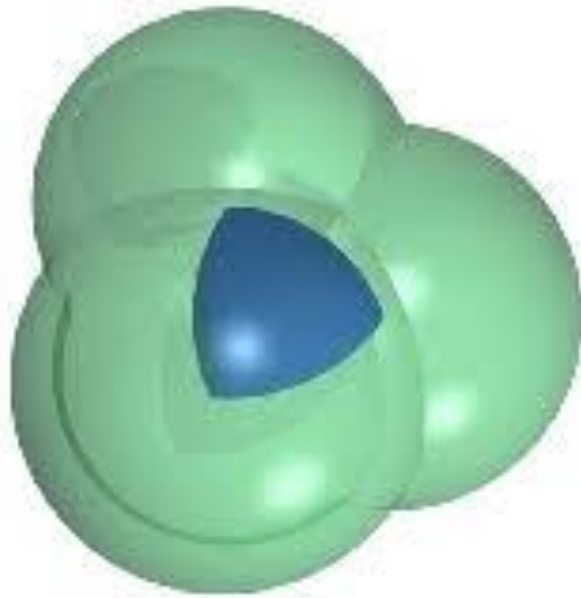


Image of the Kabbalists from the Talmud of Scikli

The Geometry of God

(Mathematics of Nullity)

$$\Phi = 0/0$$



The tetrahedron of Reuleaux

$$\sum_{n=0}^{n=\infty} \frac{n}{\infty} = \Phi$$

The equation of God

Dedication:

This book is not dedicated to anyone ... (double negation) because its protagonist is the Zero.

Instead here is the reason to write it:

Everything that exists in space-time has a geometry, so if God exists and is the Substance of Spinoza, He must have a geometry ...

You will then ask: but does God have a Mind? Certainly, His Mind is all that exists and He thinks geometrically. And does He also have a conscience? Certainly, His Consciousness is the Unity of all that exists.

(The Kabbalist Leon)

Introduction

Paul Davies, the famous scientist, at the conclusion of his famous book: The Intelligent Cosmos, writes:

"The very fact that the Universe is creative, and that its laws have allowed the appearance and development of complex structures up to the level of consciousness - in other words, the fact that the Universe has organized its own self awareness - is a considerable proof that "there is something" behind it all. The impression of the existence of a global design is overwhelming. Science can explain all the processes by which the Universe builds its own destiny, but that however leaves open the possibility that there is a meaning beyond existence. "

But the fundamental question was: what is *existence*? If you answered that question then you could also ask: what is beyond existence?

Leon, whom everyone called the Kabbalist, gathered the crowd and asked: "Do you know what I will tell you next year?" Some said, "No, we don't know!" But Others said, "Yes, we know. You will always tell us the same bullshit you told us this year. "

At this point they expected him to say like last year: "So those who know, tell those who don't know!"

But the Kabbalist instead said: "No, I will tell you about "new Truths!" And then he left.

And the crowd was upset ... because they didn't expect anything new from him ...

Instead

Leon never began to tell that ignorant crowd that he had discovered the solution, instead he wrote a book, to explain that existence was the sum of all that existed, that is, it was a zero disguised as One.

However, here is the story of that miraculous discovery ... but first we must start from the thought of Spinoza, who with his ideas had inspired Leon.

Part I

The Geometry of the Substance of God



The heresiarch Baruch Spinoza:

Golden Mist, the West lights up

The window. The diligent manuscript

Waits, already full of infinity.

Someone builds God in the shadows.

A man generates God: he is a Jew

Sad eyes and olive skin;

Time brings it like the river

A leaf in the water that declines.

It does not matter. The magician insists and sculpts

A God with delicate geometry;

From his illness, from his nothingness,

He continues to erect a God with the word.

The most generous Love was bestowed upon him

The Love that does not need to be loved.

(from Baruch Spinoza, by Jorge Luis Borges)

According to Borges, always very precise in his comments, Baruch Spinoza (Amsterdam, 24 November 1632 - The Hague, 21 February 1677) is the Dutch / Portuguese Jewish philosopher, "who attributes to his inexhaustible Divinity the modes of thought and extension ". The description could not be more appropriate. The substance of Spinoza is at the same time infinite thought and space-time extension.

Naturalistic pantheism is attributed to his teachings. Spinoza today is considered one of the great rationalists of the philosophy of the seventeenth century, having laid the foundations for the Age of Enlightenment.

Spinoza describes his philosophical system in his book *Ethica*, his major posthumous published work. The *Ethica*, originally written in Latin, is presented geometrically, with axioms and definitions followed by propositions. The *Ethica* tries to use formal logic and deductive reasoning to show that the Universe is composed of a single and interconnected Substance, with all its components originating from the *Deus sive Natura* ("God or Nature"). Spinoza asserts that this Substance is characterized by infinite attributes of which thought and extension are two, defining the physical and mental world as one and the same.

Comments of Kabbalist Leon on Spinoza

(excerpt from: *The Adventures of Kabbalist Leon*)

Leon was inspired by Spinoza to describe geometrically the Substance of God, with his famous essay: *the Mathematics of God*, which unfortunately almost nobody had understood, and he agreed with Spinoza almost on everything, in fact he called himself a Naturalistic Pantheist, but he differed from Spinoza in his concept of determinism and rejection of free will. For Leon, both man and God were totally free to do all the tricks they wanted in the present, but they were powerless in the face of future events that were determined only by the laws of probability.

Example: if a "Celestial Voice" suggested you from above the Heavens:

"... go to San Remo, run to the Casino, and bet all your money on 18", you were very free to do it but if you did it, almost certainly the result was 17 (which brings bad luck!).

It was the so-called wave function of quantum mechanics (the so-called Psi: Ψ) that made the decisions. Science had abundantly demonstrated it!

So strangely enough Spinoza was right about that too. Perhaps Spinoza had guessed the concept that it is the probability that governs the events, denying free will? How can you be free to decide if it is someone else who makes the decisions for you? Modern science had discovered that reality was subject to the uncertain laws of Heisenberg's uncertainty principle and Schrödinger's equations that determined the probability waves of physical events.

The truth therefore had two sides and two opposite solutions, similar to the paradox of Schrödinger's cat, who was both alive and dead at the same time.

Spinoza, according to Leon, was an exceptional thinker and a scientist who preceded his time by centuries. He understood that the true essence of God was to mind his own business and leave Man free to do what he wanted. For this he was unjustly considered a heretic and excommunicated from his synagogue.

Spinoza had been a victim of the backwardness and bigotry of his religious community that had not understood his brilliant ideas, but, as a Jew, domiciled in Holland, he had miraculously escaped the worst fate that had struck his other great contemporary pantheist Giordano Bruno, who unfortunately lived in Rome. The Catholic Church, after seven years of detention for heresy accusation, condemned Giordano Bruno to be burned alive at the stake in Campo dei Fiori in Rome in 1600.

The Substance of Spinoza (excerpt from: The Talmud of Scicli)

Spinoza's Substance is equivalent to the Ether of Physics, predicted by Newton, used by Maxwell in his equations and considered necessary by Einstein to explain the phenomena of his Theory of Relativity. What is the Substance? It is a "physical medium", transparent, immaterial, continuous, that fills space-time, that is a potential energy in the pure state.

Substance for Spinoza is all that, to exist, does not need anything other than itself. It is clear to him that Substance also includes all the Being, that is all that exists (Pantheism of Spinoza). The Substance is, it is unique, and it is infinite because nothing can limit it and consequently it can occupy the entire space available which

is infinite. Therefore, for Spinoza there is only one Substance: God. But if there is only that which needs only itself to exist, then naturally only God exists.

Spinoza gives geometric-mathematical explanations to his theorems, but does not explain in detail the nature of the Substance in a physical sense; among other things he does not distinguish between the two possible natures of the Substance: the potential one (Logos) and the kinetic one (Universe-Nature). The Logos is the rational divine intelligence, which today is often referred to in scientific discourse. Kinetic energy is the energy of movement, a concept widely used in physics to solve problems that include the movements of bodies. Spinoza, however, crosses the insurmountable obstacle presented to Descartes of how to reconcile the problem of the contact between "res cogitans" and "res extensa", since what has nothing in common with another thing, cannot be its cause. The "creatio ex nihilo" postulated by Maimonides and by the Fathers of the Church for the Universe by a God "Pure Spirit" was difficult to explain. Spinoza therefore circumvented the obstacle by admitting the existence of a single Substance that has always existed and that includes the Universe.

For Einstein, Substance is more properly defined as a physical term such as ether, which is not the material ether proper to the mechanical theory of electromagnetism of Maxwell-Lorenz, but rather it is much more in general that thing thought as physically real that, next to the ponderable matter constituted by elementary particles with electric charge, plays a role in the causal nexus of physics. Instead of ether, one can speak of "physical qualities of space" as well.

In his speech on the ether of 1924 Einstein concludes by saying: "... in the theoretical physics we could not do without the ether, that is the continuum endowed with physical properties: general relativity excludes an immediate interaction at a distance; every theory of action by proximity presupposes continuous fields, and therefore also the existence of an "ether".

With all this we see that Einstein's ether, while containing in itself all the properties of Spinoza's Substance, as a continuous infinite in which the phenomena of existence occur, assumes a physical value indispensable to explain the electromagnetic phenomena and those of Relativity theory.

Spinoza was extremely religious and was unjustly excommunicated from his synagogue for his alleged heresy.

The great Bertrand Russell that wrote the book "Principia Mathematica" said: "I like Math because it is not human and has nothing in particular to do with this Planet,

with all the accidental Universe - because, like the God of Spinoza, it does not love us in exchange (of our faith). "

But Russell called himself an "atheist" who after all is a bad word for our conscience, because he replaced God with "nothing", while it has been abundantly demonstrated by modern physics that "nothing" doesn't exist.

The concept of Zero in the sense of Nothing is not a Jewish concept, and therefore could not be the concept of Spinoza, who was Jewish, because the kabbalist Isaac Luria said: "In the emptiness that you generated always remains the Scent of God". What remains, when you have eliminated everything, is the physical zero (which is something other than nothing), that is the physical beginning of the events that occurred in space-time. The "zero" that remains, when you have taken away everything is "existence", with potential energy that you will never be able to completely eliminate. The substance of Spinoza is at the same time infinite thought and space-time extension. And the Substance for Spinoza is Everything in everything that exists, including thought. So the men who had written the Bible were after all themselves part of Spinoza's Substance. If the truth was that the substance had written the revelation of itself, where was the heresy?

The rabbis who had given him a tremendous "Cherem" (excommunication) had understood nothing of Spinoza's profound spirituality. Despite the excommunication Spinoza continued his activity as philosopher and original thinker, leaving us philosophical works of immense value. Then, still young, he fell asleep with his Fathers whom he had never denied, and moved to the mercy of his immortal Substance.

Devarim (Words and Thoughts)

When a Brahmin (or Brahman) reaches old age, usually, but not always, he takes the pilgrim's stick and sets out on foot towards the mountains. He walks, walks, walks, and finally arrives near a stream and sits on a hill to meditate on the mantra.

He tries to understand the cosmic truth contained in a mantra (magic formula), to then be able to teach the brahman, that is the cosmic unity from which everything proceeds, to those who want to learn it.

Even the Kabbalist Leon, upon reaching three quarter of century, decided to do the same thing. He took a carob tree stick and instead of walking, because his right foot hurt because of gout, he sat on his rough stone seat, under his favorite carob tree to meditate, not on the mantra of which he ignored the thousand meanings, but on the substance of Spinoza. And being lazy, he began to meditate without reading the instructions, so that his mind was more free to think. Now Spinoza had never said how his Substance was made, let alone explained what his geometry was. He had limited himself to saying that it was infinite and that it was both infinite extension and thought. Leon had for years tried to understand and below is the collection of his thoughts and the description of the events that led to his enlightenment.

First thought

Classical Jewish Theology (according to Munzur Uzun)

One day Rabbi Avraham Ibn Ezra spoke with a non-Jew about the creation of the world. His interlocutor had to go out for a moment. The rabbi, left alone in the room, noticed that the interlocutor was composing a poem still unfinished. Then he took the feather and finished the poem with genius.

When the man came back he sat down in front of the desk and noticed that the poem was finished. After reading he asked, "Who could write such beautiful words?"

The Rav answered him: "When you came out the bottle of ink spilled and a few drops splashed on the paper; it is therefore these drops that have written such profound words".

The man became angry and said, "You are an intelligent person! How can you say such nonsense? How can such a beautiful poem write itself?"

The Rabbi replied: "You who are so intelligent, how could you believe only an instant that such a beautiful world, so perfect, could have made itself?"

P.S. Rabbi Avraham Ibn Ezra lived in a generation where everyone thought so ...

Heretical Jewish Theology (comment by a follower of Spinoza)

"This beautiful demonstration of the existence of a creative force ... I like it. But if, as Spinoza said, there is only God, which includes Everything, if there was nothing but God, then All that is, must have been self-made... Spinoza was never understood ... but perhaps he had good reasons "

P.S. Spinoza lived in a generation in which no one thought as he did...

And here is the comment of the Kabbalist Leon:

"They make war with each other, yet it's sad to see that they are both right ..."

P.S. Leon lived in a generation where everyone minded their own business and nobody cared about what other people thought...

Second thought

One day turning to his few disciples Leon said:

"Finally the Kabbalist was able to explain to himself and to your grandmother, his physics based on Spinoza's Substance ... but that could be undetermined ... by Heisenberg's uncertainty principle. Anyway here it is:

The book of Exodus begins with these words: "And these are the names of the sons of Israel who went to Egypt" ...

And the book of Nature that is open before you begins with these words:

"And these are the names of the particles that formed the Universe: Adron, Barion, Boson, Fermion, Electron, Photon, Gluon, Graviton, Lepton, Meson, Muon, Neutrino, Neutron, Pion, Proton, and that's it? No, the Quark is missing. There is also an antiparticle for each of the known particles; the set of antiparticles makes up antimatter. "

For example the Positron, an antiparticle of the electron, has the same mass, but an opposite electric charge. Some particles, like the Photon, have electric charge and other quantum numbers all null: in these cases particle and antiparticle coincide.

This list is incomplete because, if everything was created by the Logos (the mind of God) there should also be the "Logon", the atom of the Mind of God, whose description is as follows:

"The Logon is a geometric point endowed with existence. It has no size nor mass and can be defined as the resting dimension, the resting mass and the resting time of the Photon. The geometric point is something that has taken its essential property from the concept of position, that of being here rather than there. Every event that occurs in space-time has its origin in a Logon, which is nothing but a geometric point endowed with physical existence. If space-time is an infinite sphere, each Logon, being equidistant from its infinite circumference, is its center and is here, right here at the center of space-time. Of course space-time is none other than Spinoza's

Substance, which never said it was made up of infinite Logons, but this is the great discovery of the Kabbalist. "

How is it possible that all Logons are all here instead of there?

They are all superimposed on the same point, a "singularity" which is 1, that is, the infinite Unity of God, before Creation.

And you will say: then how do they fill all the space-time?

The answer is: when at the moment of creation the Logons have become quantized, the \hbar (pronounced "h-bar") distance between each Logon and its neighbors has been inserted, in order to create an infinite symmetrical spatial lattice, with hexagonal symmetry. This happened at infinite speed, because when all the Logons were gathered in the "singularity" the Time was stopped and a movement that takes place in zero time occurs at infinite speed. The quantized Logons, moving at infinite speed, became technically Tachyons (although Tachyons were never found... until now) to be able to move faster than light.

The quantized Logons (Tachyons) then became Photons immediately, when God said: Let there be light! After that, as they became photons, they slowed their speed and traveled at the speed of light, creating a finite universe that expanded at the speed of light.

As the Antiphoton does not exist (since the photons move at the speed of light), so the Antilogon does not exist, because if for them Time is at a standstill, their quantum numbers are zero. If all that exists is the kingdom of God, then is antimatter, which is also a part of God, the kingdom of the Devil? No, because if the Antilogon does not exist, there is not even the Mind of the Devil, which would be the opposite of the Mind of God. "

So ?

The Kabbalist answers the legitimate question of your grandmother: "Exactly, the Devil does not exist, but there is a problem. Do not confuse Spinoza's Substance of God made up of infinite Logons with the Probability that reigns over the Universe and envelops all the particles. Do not confuse the "cosmic bad luck" with the substance of the Devil. "Example, if I have been on the plane 100 times and have always survived, the statistic is not a guarantee that the 101st time I will survive because I too am surrounded by my sphere of probability . God is the certainty of existence, and not the guarantee that events will end well. That means that God is probability 1, that is certainty, but this is true for Him, not for me. His infinite

certainty cannot guarantee that there is also no "cosmic bad luck", which is a negative probability equal to - 1.

And that is the Devil, who has no substance, but only negative probability.

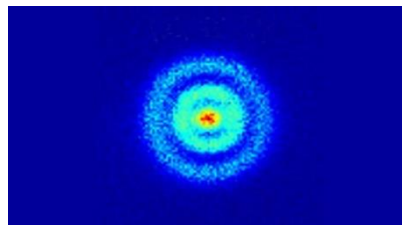
The sum of the two probabilities of God and the Devil is therefore:

$1-1 = 0$, and is represented by the Logons that becoming photons fill all the space-time.

It takes very little to destabilize the zero of that probability, so it is not God who decides but the probability, whose symbol is Ψ , that is, the Greek letter Psi (which represents the Devil's pitchfork).

What is the probability? It is not known, but it seems to have the characteristics of a very often unlucky potential energy that has its roots in space-time, so it is also part of Spinoza's Substance. (See cone of certainty)

Below is a photo of a hydrogen atom, surrounded by its probability sphere, also called a wave function.



Third thought

God exists ?

Here are Leon's comments.

This is a good question for a Kabbalist. To answer this question one must accept a truth that (almost) everyone accepts (the existence of God) written in a letter, enclosed in a box, with characters from an unknown alphabet, without being able to open the box to try to read the letter. But (almost) everyone agrees that the truth written in the letter exists and is true.

Since those who agree on this truth (the existence of God) are men, and the head of men is the box that contains the letter, a Kabbalist must enter the box to

understand. Understanding what? Certainly not the content of the letter, written in indecipherable language, but at least how and why that truth of God's existence ended up in the minds of men.

The method of analysis is that of atomic scientists or rather that of quantum physicists: we must prove the existence of something, of an object or of an elementary particle of which we know almost nothing, but whose effects on the real world can be quantified in theory, if the theory is right.

We had to try to find out if the existence of God was written in human DNA from the beginning. If the answer was positive, then the phenomenon of Life would have indirectly confirmed its divine origin, as a person's shadow confirms the presence of a person somewhere.

There was no doubt that the idea of God was in our head, even in the mind of the Atheists, since they must have an idea of what they deny, otherwise why would they worry about proving the non-existence of God?

This was a classic reasoning that Leon, the Kabbalist had already done other times in his other essays and Leo's conclusion was that one could deny the existence of God, but not the existence of the Being, because it was obvious that the Being was. Leo had also demonstrated the Unity of the Being, which was One, but he had not shown that the One also had a conscience and a purpose.

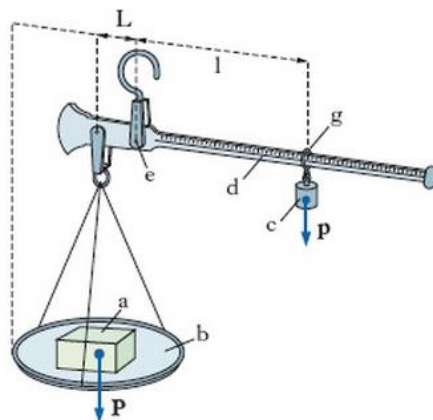
There was still an easy test to understand. Leon wondered, "Why are my apricots and my mulberries so sweet? Everyone knows why. To tempt men and birds into eating those fruits so they will spread their seeds around and cause the growth of other apricot and mulberry trees. There is a purpose in life and in nature: *growth*. So there is a meaning and a goal: *survival*. Even if we cannot read the letter inside the box, we can imagine that it contains good news, some project favorable to life on Earth (and perhaps also elsewhere).



I, the Kabbalist, continue to study that language, but there is no doubt that that unknown language is written in our DNA. "

The second most important question for a Kabbalist is: will there be life after death?

What happens after death?



Here is Leon's reasoning: "I think I know the answer but (probably) I'm just guessing. Here is my idea. Let's take the equation:

$$1 = 1$$

where the two 1s seem to have the same value 1. Actually 1 is to the left of = and 1 to its right. If I bring the right 1 to the left, it changes sign from + to - and I get:

$$1 - 1 = 0 \text{ (again a valid equation which means: } 0 = 0\text{)}$$

This means that the 1 on the right is actually the opposite of the 1 on the left. And the = sign is the fulcrum of the equation and means zero.

According to Einstein, matter is energy and we are made of photons.

Now, due to the principle of energy conservation (Emmy Noether), energy must be conserved even after death, so I can write:

$$\text{Energy of life} = \text{Energy beyond life}$$

and the = sign is the zero of the equation and means death.

Now I can bring the right member to the left and write:

$$\text{Energy of life} - \text{Energy beyond life} = 0$$

What is the conclusion? Note that Energy beyond life has the minus sign (-). Life will continue, but it will be transformed into antimatter and can't we go back because we would have been destroyed immediately? But for a matter of symmetry, even an anti-man life in the beyond could be an interesting life ...

Quite right?"

Fourth thought

The Kabbalist after the bloody deeds of London, Nice and Paris said: "Enough with these bloodthirsty deities! Not to mention the horrors of the Holocaust, caused by the ancient hatred of the Church towards the Jews.

Enough with the deities that incite to hatred, racism and carnage. My Sicilian farmer would say: "Sunu carnifici..." Convert yourselves to Spinoza's naturalistic pantheism and your God will be the Substance of Spinoza and the ether of Einstein, who do not break your balls with their commandments. The door is open to all those who understand math. The Commission will examine you and if you pass you will enter the circle of enlightened people. It will be enough for you to understand the Theory of Relativity and you will also enter, after you are dead, in the Paradise of Mathematicians, where you will have fun solving equations!

The method for understanding the mathematics of the Substance will be the Jewish Kabbalah. "

But some of the followers said, "Nice fun to solve the equations! I prefer to go to Hell, where there is no math! "

Definition of Kabbalah according to the Cabalist Leon

But Leon continued to preach.

No people have devoted time and effort to the search for Truth and God more than the Jews.

They are the ones who invented God, they are the ones who then elaborated their invention, writing the Bible, starting from a dream of Patriarch Abraham. It is they who then wrote the interpretation of the Bible, namely the Talmud. And it is in the Talmud that we find the key to explaining the reason for so many efforts.

Here's what's written:

"If a man has never thought about these four things: what's up, what's down, what was there before the world, what's next? It would have been better if that man had never been born. "(Talmud of Babylon, Hagigah, 11.b)

Over the centuries, even starting before the Bible was written, hundreds of anonymous thinkers wrote several volumes containing their spiritual heritage which were called "Kabbalah".

However, Kabbalah is not only the intellectual property of the Jewish people, but according to Rabbi P.S. Berg (photo below) Kabbalah represents the spiritual heritage of all humanity. The word Kabbalah means "tradition", handed down to future generations by the scholars of Israel and represents the wisdom of the ancients written in different books. It is not a religious text, but an important tool for understanding God and Creation. It does not deal with the exegesis and the literal interpretation of sacred writings, but unlike the spiritual traditions that only celebrate the ecstatic and transcendental search for God, the Kabbalah keeps its feet firmly resting on the Earth. The understanding of divine wisdom is obtained through logical analysis that is used by scientists to study quantum physics or genetics, and can take unexpected and paradoxical forms. The great Kabbalists of the past, like Maimonides, in fact suggested to the student to provide himself with a good scientific basis, before approaching the study of Kabbalah because "no one who is totally ignorant of mathematics can grasp the full meaning of the natural order that is intertwined so deeply with the fabric of physical reality. "(Paul Davies: the Mind of God.)

Kabbalah includes the detailed analysis of the Hebrew alphabet and of the 22 letters that compose it (Gematria). You will wonder why? Since the order of Creation was given by God with his Thought and his Word, saying: "Let there be Light!" And "revelation" was transmitted to man with the Word written in the Hebrew alphabet, it is logical that the search for truth starts with the analysis of the Word (Logos in Greek).

No man better than the evangelist John (who was a Jew) expressed the concept better.

The Gospel of Saint John is the only one to give a theoretical explanation of God and his relationship with Creation. The Gospel begins with these beautiful words: *"In the beginning was the Word (Logos in Greek) and the Word was with God and the Word was God. It was with God in the beginning. Through him all things were created; without him nothing was created of all that was created. In it there was life and that life became the light for men. "*

Since everything started from the Word, it is clear that the study of words and the alphabet plays an important role for the Kabbalist.

The famous Argentine writer Jorge Luis Borges wrote about the Kabbalists: "*Every man is on earth to symbolize something he ignores, and to make a particle or a mountain of invisible materials that will be used to build the city of God*". And he added: "*History is an immense liturgical text where the Jotas and points are worth no less than the entire verse or the entire chapter, but the importance of both is indeterminable and deeply hidden*". But according to Borges we must not overdo the permutations and numerical analysis of the alphabet, because there are other methods that can be used. Given that the Torah represents the revelation that was revealed to the Hebrews with the Hebrew alphabet, but to expect that every single letter of the alphabet and its permutations or their numerical values have a meaning regardless of their position in the text, it would be asking too much to the fundamental intentions of the Holy Spirit.

The Cabalist Leon, who had spent many years studying the Bible, was perfectly in agreement with Borges's words, because Leon had discovered that mathematics and geometry were equally useful for understanding the history of Creation. His real master was the pantheist Baruch Spinoza, who had solved the riddle with a brilliant intuition. For Spinoza all that exists is the substance of God, which is at the same time thought and infinite space-time extension. And the Substance for Spinoza is Everything in everything that exists, including thought.

So the men who had written the Bible were after all themselves part of Spinoza's Substance. ***The paradoxical truth was that the Substance had written the revelation of itself, using the minds of men.*** To understand that paradox it was not enough just to understand the mystery of "revelation", it was also necessary to understand "creation".



Fifth thought

“The beauty of the Pantheistic God, is that nobody knows who He is...”, Leon said.

The Kabbalist Leon, sinning with pride, had said: "The time has come to say how things are. The God we perceive is the logical intelligence that helps us solve the problems of physics. A mathematical God who always remains hidden and has never spoken, especially in public, but whose existence is deduced from His works. It is He who directs the becoming and events with algorithms that are still unknown."

He should have added: " probably ", if only to honor the uncertainty inherent in every calculation of quantum physics, which for Heisenberg is always uncertain.

The concept of Zero in the sense of Nothing is not a Jewish concept, and therefore could not be the concept of Spinoza, who was Jewish, because: "*In the emptiness you generated always remains the Scent of God*". That was an absolute truth according to the Kabbalist Leon, who repeated the words of the Kabbalist Isaac Luria. What remains is the physical zero (which is something other than nothing), that is the physical beginning of the events that occurred in space-time. The physical zero is the infinite Substance of Spinoza.

The "zero" that remains, when you have taken away everything is the "existence", which you will never be able to completely eliminate.

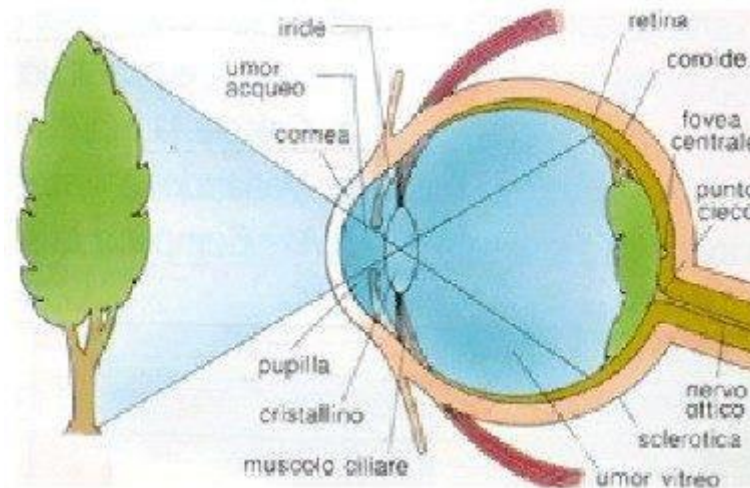
The existence in physics is identified with the ZPF, the zero point field, in which everything that exists is immersed.

That is the physical field from which (perhaps) we derive our "logical intelligence" by osmosis.

The mystery of the zero point

The physical zero therefore is not a "nothing" as people think, but a physical reality, and infinite physical zeros form the Substance of Spinoza which is at once Thought and infinite space-time extension.

The drawing of the human eye illustrated below explains not only what physical zero is, but also the quantum phenomenon of entanglement. At the intersection of the two cones of light there is a zero point where the tree is both vertical and inverted. That point cannot be other than the "zero point" because zero is the only number that with the sign $+0$ and -0 is always equal to itself, that is zero. At that point the tree is both vertical and upside down, like Schroedinger's cat who is both alive and dead.



The zero

The words of the Kabbalist:

"Zero is the origin of all things: of those that are because they were not before being and those that are not because they were not and continue not to be. "

So these two propositions are explained respectively with: the cone of certainty and the equation:

$$0 = 0$$

But you will ask: what about God?

"God was even before He was, so He is special!"

Why ?

"Because God is the beginning of the cone of certainty, the fulcrum of the lever, the pivot of the scale, the equal sign of each equation, the projector of the camera through which the film passes, the filter through which reality passes, the zero point of the human eye, the zero point of creation, the saddle between this world and the other, and His Time is zero and His probability is 1, that is certainty. God is the sum of all probability zeros that equal 1. "

The human eye explains why. If God is probability 1, there is no doubt that God is at the zero point of the pupil, where the tree is both vertical and inverted.

Here is Leon's explanation:

God is the beginning of all cones of certainty of future events, which start from scratch.

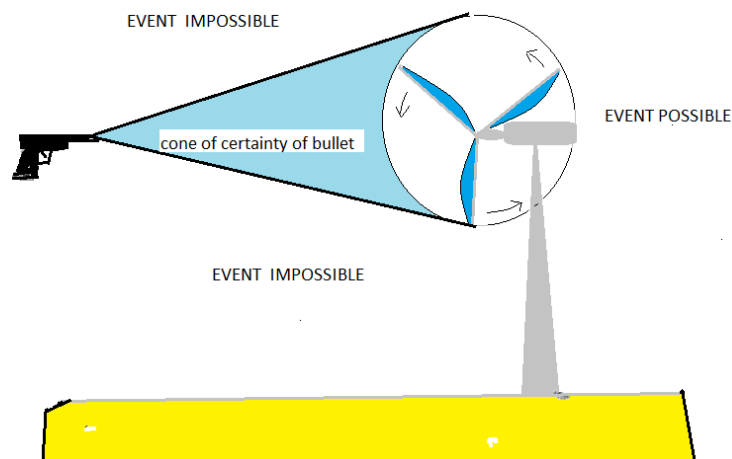
Leon had wondered if the concept of "Future" was something real, something really existing, something measurable with scientific instruments or just a creation of the human mind to separate time, like the sand that an hourglass separates into past sand, sand that is passing right now and sand that will pass.

Clearly the future was an invention of the human mind, which had no physical reality: it existed only for men, to be able to depict in their static and inflexible minds, the physical phenomenon called "movement".

Combining the concept of future movement with the possibility of verifying an event Leon had invented a very useful spatial representation to understand what was happening: the "cone of certainty", which resembled an hourglass and had the same function of separating the past from the future, passing from the present.

Here is a representation of the cone of certainty that is easy to understand.

A cone of macroscopic certainty that includes several choices is the one that occurs for a bullet fired at a rotating wind turbine. If the trajectory is not calculated to perfection, the bullet can hit or any of the blades or pass over without touching them.



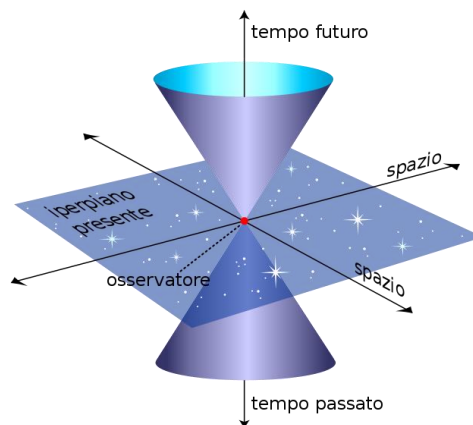
The cone of certainty in the case of the bullet, will include the total probability that the bullet hits or one of the rotating blades or passes further through the blades. The sum of all the probabilities of the bullet's trajectories within the cone will therefore be 1 (ie 100%) because inside the cone of certainty the bullet has no choice, either hits one of the blades or passes over. If instead, for some reason, the bullet moves outside the cone, its probability related to that event will be 0. The bullet will therefore have a potential zero to verify the desired event outside the

cone and a potential 1, that is the certainty, to verify one of the events wanted inside the cone. But which event? **It is not known until it occurs.**

Now these concepts very simple to understand apply to all kinetic events, that is events due to movement, which have the potential to occur in space-time. Space-time not only includes the Universe, but inevitably, since the Universe has had an origin with the Big Bang, space-time must extend to the Infinity beyond the Universe, in which it floats the Universe. To understand we can now study the cone of certainty of the Universe, which is well known as a cone of light and was invented by Einstein and Minkowski.

What is the future potential of the Universe event that includes all the infinite cones of certainty of future events? To understand what the future of the Universe is, we must study the diagram of Minkowski, professor of mathematics of Einstein.

The diagram applies not only to the Big Bang, but applies to every event that occurs in space-time. The future in reality is nothing but the representation of the probability that a possible event occurs after a certain interval of time within a cone of certainty. In the case of the Universe, its probability of developing inside the cone of light is 1, that is certainty, because none of its parts (with mass) can exceed the speed of light. As we have already said, in reality the future is virtual and at any given moment, it does not exist, but only the present and history exist, which represents the past.



The time of the future is still, until it becomes present. Before the Universe occurred from the past, the red dot represented the apex of the cone of certainty of the future Universe, which included the sum of all the infinite probabilities of future events that could occur within the Universe. Also in this case the sum was 1, that is certainty, in fact all the matter that will constitute the future Universe will be formed starting from that point of probability 1. That point also contained in itself the potential of the onset of life on Earth. Everything was there at that point zero, everything was there "sicut erat in the beginning".

It was written from the beginning that life would be verified the Universe.

And who wrote it?

Men of little faith, it is clear that it was written by the hand of God in His Substance!

A new Kabbalah

Adriaan Koerbagh described the Bible and dogmas as the Trinity and the divine nature of Christ as only the work of men. Furthermore, like his contemporary Baruch de Spinoza, he argued that God is identical with Nature and that nothing exists outside of Nature. Thus, he argued that natural science, not religion, was the true theology of the world. According to him it was necessary the secularization of the Republic of the Netherlands and the limitation of ecclesiastical powers. He also argued that religion was irrational and only maintained his position through deception and violence. In 1668, he was found guilty of blasphemy and was sentenced to 10 years in prison in Amsterdam, followed by exile and a fine of 4,000 florins. He died in 1672 due to the pressures of prison life. His publications have been largely destroyed by the authorities of the Republic.

The history of Koerbagh shows that the tolerance of the Dutch Republic, however great compared to almost all the other countries of the world, including Italy (where the heresiarch Giordano Bruno was burned alive in 1600), was not certainly unlimited.

However, evidently Koerbagh had not understood well the deep meaning of Spinoza's philosophy, because perhaps, if he had understood, he would be saved, as Spinoza was saved after all.

The substance of Spinoza is at the same time infinite thought and space-time extension. And the Substance for Spinoza is Everything in everything that exists, including thought. So the men who had written the Bible were after all themselves part of Spinoza's Substance. If the truth was that the Substance had written the revelation of itself, where was the heresy?

It was a problem not easy to solve, which required a detailed and complex analysis, so after writing the book: the Talmud by Scicli, the two authors, Leon and Jacob, continued to discuss the validity of the concepts expressed in the book in the typical Talmudist tradition.

The problem was not to understand the mystery of "revelation", it was also necessary to understand "creation".

Leon had told Jacob: "For the scientist, mathematics is a guarantee of precision and objectivity and is also surprisingly the language of Nature itself. No one who is totally ignorant of mathematics can grasp the full meaning of the natural order that is so intertwined deeply with the fabric of physical reality "(Leon was quoting Paul Davies: the Mind of God.)

In other words, Leon told Jacob: "Davies is repeating the concept already expressed by Maimonides that before hoping to understand creation it is necessary to build a solid scientific foundation."

And Jacob had replied to Leon: "Science alone cannot solve the problem. The complex world of the mind must be analyzed in detail using philosophy."

Their book actually suggested that something, besides the Spinoza Substance made of infinite immaterial space-time atoms, had to exist before the Universe and that "a Divine Mind must have controlled Creation and must have made the laws of Nature"

Paul Davies in his book: the mind of God, expressed the concept: "I believe that the proposal of the existence of these" laws of initial conditions "strongly supports the Platonic idea that the laws are" out there "and transcend the physical Universe. Sometimes it has been argued that the laws of physics originated with the Universe, if that were the case, then such laws could not explain the origin of the Universe, because the laws would not have existed as long as the Universe had not existed ".

It was clear that their thinking must now be analyzed and explained using the methods of the Kabbalists, to define each definition in detail, to divide each concept into four parts, to analyze each hypothesis by explaining each letter of the alphabet. In other words, it was necessary to write the Kabbalah of Scicli's Talmud.

However, there were problems that had to be overcome before proceeding.

Leon had told Jacob: "After spending years studying the Kabbalah I have come to admit that I fully agree with the Borges analysis on the methods of the Kabbalists. They do exactly the same work that astrologers do when they interpret the movements of the stars to predict the human destiny. Given that the Torah represents revelation and was revealed to the Hebrews with the Hebrew alphabet, but expect that every single letter of the alphabet and its permutations or numerical

values have a meaning regardless of their position in the text, it would be asking too much of the fundamental intentions of the Holy Spirit.

The Kabbalists, confusing the complicated question of deciphering the message of the Holy Spirit, ridicule themselves before an honest scientific truth. Therefore, in my explanations I will try to avoid the mistakes of the Kabbalists and I will try to give only the definitions necessary to explain my theories. "

Then Leon added: "To avoid falling into error I have simplified the traditional Kabbalah, avoiding using the usual 33 numbers (22 letters of the Hebrew alphabet, ten Sefirot and the Unity of God) to explain Creation. I limited myself to using the three sacred numbers of my Mathematics of God, that is: 0, 1 and infinity (∞). Because their permutations explain both the Unity of God and the infinite Substance of God. These are the numbers of the famous equations of Brahmagupta:

$1/\infty = 0$ and

$$\frac{1}{0} = \infty.$$

that Brahmagupta wrote in 628 A.D., without worrying about the philosophical implication of concepts like zero and infinity.

Their permutation also explains the Theory of Special Relativity and the effects on space and time of the speed of light:

$\infty \times 0 = 1$ since at the speed of light, taken equal to 1, time becomes

infinite and the space is reduced to zero.

This is all I need to understand Creation! "

Sixth thought

According to Leon the first thing to do was to understand the mathematics of God's substance and to answer the question: how is it possible that it is infinite and continuous and that it fills all space-time, while respecting the unity of God? And here is his explanation:

Mathematics of God

Explained by the Kabbalist

God, in all religions, is always associated with the concept of infinity and infinity is in turn closely associated with the concept of zero. According to John D. Barrow, in his Book: Pi in the Sky, he writes that the great Indian mathematician Brahmagupta in the sixth century AD faced for the first time the problem of division by zero.

According to others, in the twelfth century it was instead Bhaskara, another Indian mathematician to use the division by zero as a means to define the Infinite.

According to John D. Barrow in another of his books: The Infinite, on page 31, he attributes the authorship of the equations:

$$1/\infty = 0 \text{ and}$$

$$\frac{1}{0} = \infty.$$

to Brahmagupta who wrote them in 628 AD, without worrying of the philosophical implications of concepts such as zero and infinity. From the point of view of classical mathematics a number divided by zero forms an indeterminate result. Instead, in the mathematics of the mathematical theory of limits this operation is possible and legitimate. There are however particular mathematical structures within which the division by zero could be defined in a consistent way (for example, the Riemann sphere).

Proof: We have seen that 0 is an accumulation point of the series $1/n$ as n tends to infinity. That is: $\lim_{n \rightarrow \infty} 1/n = 0$ then we can write

$$1/\infty = 0 \text{ and its reciprocal}$$

$$\frac{1}{0} = \infty.$$

These are the equations of Brahmagupta.

We also said that the mathematical logic implies that $0/0 = 1$, and then we can take the value 0 as:

$$1/\infty = 0$$

and then write

$$1/\infty \text{ divided by } 1/\infty = 1$$

and since the two infinities cancel each other we would have $1 = 1$, which is the proof that $0/0 = 1$ (See also the demonstration below)

But someone might say that $2/\infty = 0$ and also $3/\infty = 0$ and so on and so this equation, as the Norwegian mathematician Abel said, is "devilishly indeterminate" because all the numbers divided by infinity are zero (except the infinite, which when divided by infinity makes 1). But if we apply to $2/\infty = 0$ the same treatment used for $0/0 = 1$ we can write $2/\infty$ divided by $2/\infty = 1$, but then, once the infinite disappears what remains is only $2/2$ which is 1. And since also $3/3$ makes also one, with this trick we see that there is consistency in the statement that this is true for every number and Abel should sleep quietly in his grave. The "diabolical uncertainty" no longer exists. Now we look at another aspect of the equation of Brahmagupta that binds it to the theory of relativity of Einstein.

From the equation above : $1/\infty = 0$ which we have shown to be true for all numbers except for $\infty/\infty = 1$, we can derive the equation that explains the reciprocal effects over space and time of the speed of light: $\infty \times 0 = 1$ which is obviously true, however we should try to understand what it really means. For the theory of relativity this equation means that an infinite time, multiplied by a zero space is equal to 1, the constant of the speed of light.

A multiplication is a shortcut to the mathematical sum of numbers equal to each other, example: $2 \times 4 = 8$ equals $2 + 2 + 2 + 2 = 8$, i.e. four times two is equal to eight. Then $\infty \times 0 = 1$ means $0 + 0 + 0 + \dots$ to infinity = 1 This concept is demonstrated with the theorem of Bolzano-Weierstrass of the sum of the points of accumulation to the zero of the series:

$$1/n + 2/n + 3/n + \dots \infty/n = 1 \text{ for } n \text{ increasing to } \infty, \text{ which means that:}$$

$$0 + 0 + 0 + \dots \infty/\infty = 1$$

Since between a zero and the next zero there is neither distance nor free space, with this method you can count to infinity using the numbers of the numerator and the sum of all the infinite zero is equal to 1. The implication is that counting all the logons of the substance of God, you get to 1, i.e. the unity of God. **God is One.**

Explanation

The three numbers 0, 1 and ∞ are connected in the equation of Brahmagupta. 0 and ∞ are the limits of all the positive numbers and 1 is the sum of all the infinite zeros. These are the mathematics of God. Let us now analyze the three sacred numbers.

1 - **Zero**. The zero does not mean nothing but can be defined in physics as the beginning of the cone of certainty of an event in space-time (see definition of cone of certainty in the Talmud of Scicli). The zero is the essential absolute unity as it is not made up of parts, is equal to itself, also when squared and is also equal to its opposite (0 squared = 0 ; $-$ or $+$ 0 is equal to 0) and starting from zero can be built all the natural numbers, in that the sum of infinite zero is equal to the unity ($\infty \times 0 = 1$) and from the unit can be constructed all natural numbers adding 1 to form the 2 and so on.

Logon. The zero in physics is the Logon, defined in the Talmud of Scicli as the atom of space-time and equivalent to an inactive photon, according to the formula: Logon = rest mass of the photon. The logon is equivalent to the concept of monad of Leibniz, but while the monad had only one reality in space, the Logon (zero physical value) has a reality in space-time as well in terms of energy as it also has zero mass when it is at rest and a potential energy provided by the inertia of the infinite space.

Note: In the Talmud of Scicli we had used the symbol $0 +$ to describe the physical zero, that is, the Logon, that is the smallest part of the Being which is part of reality, and different from nothing. Now I learn from Leon Lederman, the great Nobel physicist, that zero is the only number that with the sign $+$ or $-$ is always equal to itself. (Example $+1$ is different from -1 and $+2$ is different from -2 etc. ..). This fact gives to the zero an outstanding physical stability: it is what it takes to be the building brick upon which the structure of the Universe rests, as well as the theoretical basis of the mathematics of Cantor and Peano. (Note that if you look at the Occam's razor, the cut is zero and that zero, that is unique and equal to itself, divides a line into two parts, or a space in two faces, one looking toward $+$, and one looking towards $-$ and this is important in physics as well in theology.

2 – **One**. One is a unit but also a totality and a uniqueness.

A unit can be unique and indivisible but can also be constituted by parts. The parts that make up the One range from zero (Logon) to infinity (En Sof)

The parts of the En Sof, the infinite substance of God, are in contact with each other without leaving gaps, for this reason all together they make up the Unity of God

The Logon is an example of a One that has no parts. God is the example of the One who has infinite parts.

3- Infinity - The infinity is a sphere whose radius is infinite.

Each point (logon) of the infinity is the center of the sphere, since it is equally distant from the circumference, whose curvature is flat and is never reached.

Each logon of the infinity is subject to the "inertia" that makes it maintain its spatial position of rest with respect to the circumference of the infinity.

It makes no sense the movement of the logon up or down or sideways because all the rays of reference of its coordinates are always the same, that is infinite. The logon is therefore still in the infinite space.

If there happens a "bubble of time" caused by an explosion inside the space-time, the logons may move laterally inside the bubble of time and so a "kinetic Universe" may be created in the infinite space. All logons moved from the bubble of time exert a pressure on the inertial bubble of time which in the past has been called "gravity" and now we know that it is a phenomenon due to the inertial pressure of the logons.

Seventh thought

Proof that God is the Unity of everything that exists

“ Zero is the fundamental brick with which the world is built” said Leon.

The night of the discovery that even zero, in addition to infinity, was a prime number, the Kabbalist Leon slept badly. His brain could not relax because a large number of new ideas whirled in the head.

First it was true that, if you put yourself in gear for a new road, at the end you come to completely unexpected places you had not imagined to find when you had started. Secondly it looked like it was true what the great mathematicians, including Riemann, had said: that prime numbers formed the backbone of mathematics. But why they had not included zero among the prime numbers?

Since he could not sleep, Leon got up, put on his slippers and went into the kitchen to make some coffee, and meanwhile he was thinking. Pythagoras said that the numbers reign on the Universe and the great Euler said: "Mathematicians have tried in vain to discover some order in the sequence of prime numbers, and we have reason to believe that it is a mystery that the human mind can never penetrate." Leon had discovered that the logon, the indivisible atom of space-time, was a geometric point characterized only by its existence and had neither size nor mass. The logon was described mathematically by the physical zero that Einstein used in his calculations to explain the mass-less photon traveling at the speed of light.

If the photon had stopped it would become a logon. And that was the first great discovery of Leon. Since the logon had neither size nor mass, infinite logons filled all the space-time of Einstein leaving no gaps. But Leon knew that space-time was the Substance of God. Now with the discovery that the zero was a prime number Leon had proved that the prime numbers filled not only the physical world, but also all the mathematics without leaving any gaps. It is worth reviewing the reasoning of Leon, which he as usual had published in English on Academia Edu.

Demonstration

A number is prime when it can't be the result of the product of two smaller numbers, and therefore, for the reciprocal properties between multiplication and division, it can't be divided exactly by any number other than itself or 1. Example: 6 is not prime because it can be written as the product of $2 \times 3 = 6$ and this equation remains valid even by rotating its terms in such a way that the left side of the = sign is equal to the right. The proof is that 6 is divisible by 2 and 3: $6/2 = 3$ and $6/3 = 2$

If we take the number 17, which is a prime number, there are no smaller numbers that multiplied together would lead to exactly 17. Reciprocally 17 is not exactly divisible by any number except himself, $17/17$ which is actually not a division but a "tautology", or by 1, which means nothing else but that 17 is just 17. Now the prime numbers are infinite and follow each other in a disorderly and unpredictable way, starting from 2, 3, 5, 7, 11, 13, 17 ∞ , endlessly jumping from place to place, so to say. As you approach infinity, the distance between two consecutive primes becomes more and more unpredictable. Note that except 2, all the prime numbers are odd numbers. Logically 1 is not a prime number although it is a special issue.

The number 1 can be achieved by multiplying two smaller negative numbers:

$(-1) \times (-1) = 1$ so it is not a prime, for the definition of the prime numbers. But we must note that if one is not a prime, not even - 1 is prime, and since in strictly mathematical terms, a non-prime number must be the result of the multiplication of

two or more smaller prime numbers (fundamental mathematical truth), then in the case of 1 we must admit that there are no two smaller positive prime numbers that multiplied together, give 1. But Leon had shown (see below) that one was also the result of the product of infinite zeros, which he had discovered to be prime numbers, and that was a guarantee that 1 was a natural number not prime. We will then see that the 1 is a special issue because it is one of the three divine numbers.

The 0 instead is a special prime number, for these reasons. To be a prime number it must be divisible by itself or by 1. First of all 0 can't be obtained by multiplying two smaller numbers between them, which is one of the requirements to be prime. Second it can satisfy the criterion of being divisible by itself, because $0/0 = 1$ as all prime numbers divided by themselves and can also be divisible by 1, i.e. $0/1 = 0$ remaining equal to itself as all prime numbers divided by 1.

But then 0 is also a prime number, such as infinite .

Then the series of prime numbers must be modified to include zero and starting from it, up to infinity so:

0, 2, 3, 5, 7, 11, 13, 17 ∞ .

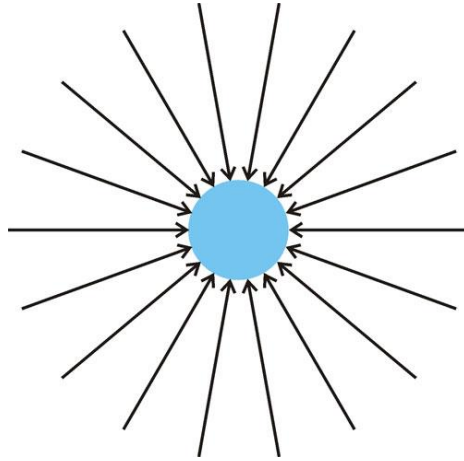
It follows that the infinite Substance of God is contained between two prime numbers: 0 and ∞ , while including all possible numbers and despite being formed by endless zeros. In fact, Leon had found out that the substance of God, to be a continuous compact infinite without voids, had to fill all the space-time available that was infinite. Here is his famous equation, which demonstrated his theory: $1 / \infty + 2 / \infty + 3 / \infty + 4 / \infty + \dots \infty / \infty = 1$

Of course any number of the infinite series of natural numbers must first be made to converge to zero, dividing it by infinity, so that the series could be written: $0 + 0 + 0 + 0 + 0 + \dots \infty / \infty = 1$

And that was the proof of God's Unity.

But then, if every zero of that series was a prime, their infinite sum was also a prime number? No, because that sum had resulted in 1, which was not a prime number, but a special issue describing the Unity of all that existed. Only the infinite (Ein Sof) was a prime number and the starting point of all events in space-time, the 0 (zero), was a prime number and moreover the product of infinite many prime zeros respected the mathematical law that every natural number who was not a prime was the product of smaller prime numbers . Then God was a prime number or a natural number? And this was the mathematical equation describing the dilemma: $\infty \times 0 = 1$

The answer was as follows: God, in His Infinity was a prime number, but in His Unity was a natural number. God in His infinite Justice, satisfied all! Now everything was clear, now everything was explained and Leon wondered: "And now that I found out all thiswhat shall I do?"



Eighth thought

The Reuleaux Triangle (Explained by Leon with the help of Leonardo Petrillo)

Since the middle school we have learned the properties of triangles with the geometry of Euclid.

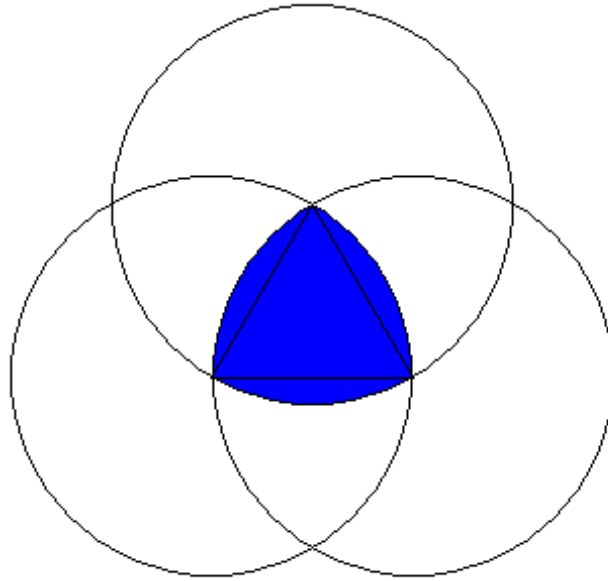
In particular we have studied the geometry of the equilateral triangle, which has the property of having all equal sides and all equal angles. We also know that only a plane (and only a single plane) pass through three points in space. Above all we know that a three-legged table is very stable, precisely because for the three points, on which the table rests, only one floor passes and the table does not wobble.

Starting from the equilateral triangles whose vertices have the property of being at the same distance from the other vertices, let's try to find the system to fill the space-time completely, without leaving empty spaces.

Why ? Because if it is true that the Substance of Spinoza fills all the infinite space-time, the Kabbalist Leon wonders: how is it possible that we can fill Everything without leaving voids?

The trick is: starting from a special equilateral triangle: a triangle with curvilinear sides, called Reuleaux's triangle, which is obtained by tracing from each vertex of an equilateral triangle an arc of a circle whose radius is the side of the triangle and for extremes the opposite vertices .

Here it is:



That curvilinear triangle has constant amplitude, that is, given any point of its circumference, its distance from the opposite vertex is always equal to the radius r , since each side of the triangle represents a section equal to $1/6$ of a circumference of radius r .

Since our particular triangle of Reuleaux consists of three arcs of circle of radius r its perimeter will be equal to $3/6$ (ie $1/2$) of the measure of the circumference $2\pi r$, that is πr .

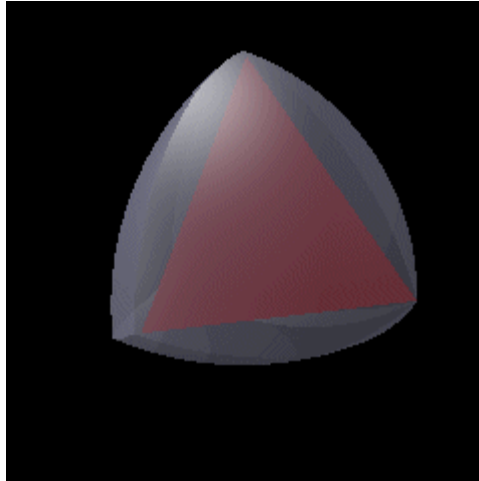
If we take the radius $r = 1$, we see that the circumference will become π .

Let us keep this fact in mind, namely that by reducing the radius, the circumference will always remain π (Greek Pi).

Well, let's go ahead to try to fill all the space-time.

The Tetrahedron of Reuleaux

There is a spatial extension in three dimensions of the triangle we have studied, defined as the intersection of four spheres of radius r centered at the vertices of a regular tetrahedron of radius r , the tetrahedron of Reuleaux.



However, the tetrahedron of Reuleaux, if rotated inside a cube, does not simultaneously touch the six faces, so using Reuleaux's tetrahedrons it is not possible to completely fill the space-time that would be filled with cubes, because they leave gaps. You can fill all the available space instead with the alternation of planes tessellated by regular triangles with an ABAB symmetry, as we will see later.

But a Cabalist always seeks the hidden secrets and is not satisfied with geometry alone. The question is: what happens if the radius r becomes zero, when I have filled all the space-time without leaving voids?

The surface of the tetrahedra becomes very small, becomes an Aleph, and the tetrahedra become very small, so small that they have dimensions equal to zero. Since the distance is zero, between one zero and another, they manage to fill all the space-time without leaving voids. But the zero (which I called "logon", because it is the space-time atom) continues to have a π (Pi Greek) dimension. And that is the dimension that can never be eliminated, the basis of all that exists, that is *existence*, because the Kabbalist Isaac Luria said: "From the emptiness that you generated you will never be able to eliminate the perfume of God" ...

Ninth thought

Relationship between continuous and discontinuous space-time

One of the most complex "labyrinths" of human thought is the relationship between continuous and discontinuous space-time. Since ancient times Pythagoras had raised the problem of what space was, which is intuitively continuous, but we know that we can divide it into infinity because the result of division is always a dimension

that, as such, can be further divided. The search for the fundamental particles to fill the space so as not to leave voids had continued for centuries, until Leibniz introduced the concept of "monad", a particle so small that it was not made up of parts and therefore filled the space without leaving empty spaces. In my book: the Talmud of Scicli (which can be read on my blog in Google) I refined the concept (I wonder if I'm right) with the concept of "logon", a particle not only of zero size, but also of mass equal to zero, whose structure is only constituted by its existence as a point of space-time. The logone is only endowed with potential energy, when it is immobile, but manages to create kinetic energy, and therefore mass, when it moves.

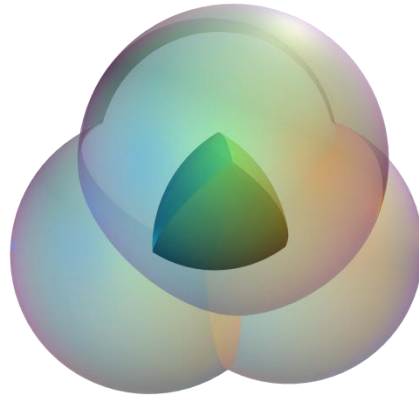
A logon is therefore the mass at rest, the size at rest and the resting time of the photon.

The logons, being of size equal to zero could fill the whole space without leaving empty spaces, forming a continuum. All this is obviously in conflict with the theory of quantum mechanics, whereby energy manifests itself only as "quanta" of energy, discontinuous and separated by the distance "h" cut. A second dilemma is how to balance gravity / inertia, which are properties of continuous space filled with logons, with quantum theory (which is made of discontinuous particles) which works remarkably well to explain physical reality. No one has so far managed to put together the theory of relativity, which is based on a continuous space-time, with quantum theory based on quantized space-time (hence discontinuous).

I have tried it with the tetrahedron of Reuleaux, which consists of four probability spheres surrounding four quantized logos embedded in one another so that the center of each sphere is on the surface of the other three. I assumed that the distance between the quantized logos is equal to \hbar (pronounced "h-bar") , the Planck constant.

Since for the quantum mechanics each logon is simultaneously present in every point of its sphere of probability, the tetrahedron theoretically becomes a solid that completely fills space-time without leaving empty spaces. My concept of space-time is therefore full of Reuleaux tetrahedrons that completely fill all the space-time and all together create inertia, gravity and nuclear forces. How come? I admit that I don't know ... because this is one of the mysteries of the hidden variables foreseen by David Bohm and Albert Einstein. Surely, when space-time becomes quantized, it acquires an energy (which has been called Zero Point Energy) that causes those effects. But what is that energy due to, no one knows.

But the tetrahedron of Reuleaux has other extraordinary properties that make it resemble the famous Tetragrammaton, the sacred name of the Unknown God of the ancient Jews, consisting of four letters, which theoretically represent a tetrahedron.



The geometry of the tetrahedron of Reuleaux

The image above represents four interconnected (blue) spheres of probability surrounding four quantized logons embedded in each other so that the center of each sphere is on the surface from the other three. At the center of the three spheres is a tetrahedron (dark green) which contains a space-time common to all four spheres. This central tetrahedron that I propose to call "**Aleph**" has some interesting properties:

- 1- Each point of its volume is common to the four quantized logons.
- 2- The distance between its vertices is assumed to be equal to \hbar , the Planck constant.
- 3- Its total probability must be shared 1/4 between the four quantized logons.
- 4- Since the logons (that is the space-time atoms) are dimensionless, this central tetrahedron or Aleph, despite being of limited size, contains infinite space-time atoms and therefore its total probability is 1.
- 5- Every possible event that has a probability to be verified within the Aleph, will be verified in it, as if its space-time were continuous.
- 6- The sum of infinite Aleph fills all the infinite space-time available.

Here is the description of Borges' Aleph:

"The diameter of the Aleph, would have been two or three centimeters, but it contained all the cosmic space, without its vastness suffering from it. Everything ... it

was infinite, because I could clearly see it from all points of the Universe . "

(Jorge Luis Borges)

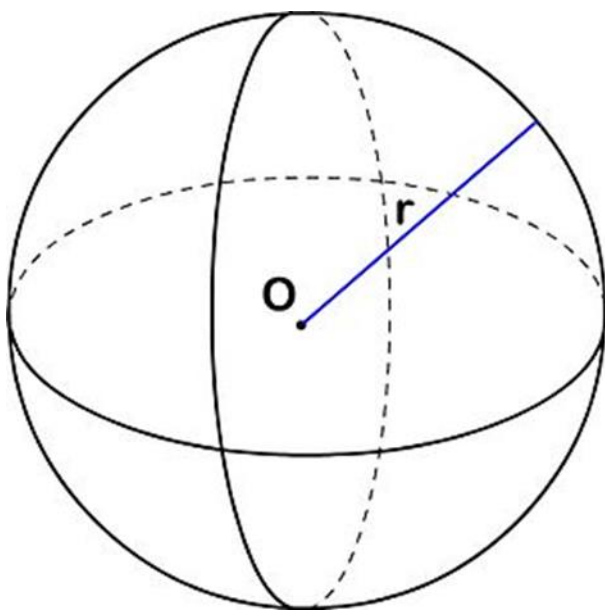
Properties of the Aleph

1- The Aleph behaves like a spherical wave of probability because the probability of finding the four quantized logons within its volume is always 1. It follows that the space-time inside the Aleph is a "continuous".

In fact in quantum mechanics the uncertainty of the spatial position of a photon (the photon by definition is a quantized logon), which can be represented by a sphere of probability, disappears when the wave collapses. The mechanism responsible for this phenomenon is called the collapse of the wave function and can be understood by studying what happens to a soap bubble. If the sphere of this drawing represents a soap bubble, when the bubble collides with an object (for example point A, top right), the bubble bursts and the radius r becomes zero almost instantly.

The bubble collapses at the point where the collision occurs and disappears. Imagine that the bubble shown below is the probability wave of a photon that expands in space-time at the speed of light.

Here is what Anton Zeilinger, a famous quantum physicist, says about this phenomenon, in his book *The Veil of Einstein*: "... in the case of quantum physics we speak of probability waves. If a photon is emitted from a very small point source, it corresponds to a spherical probability wave, whose intensity in a certain position indicates the probability of finding the particle in that



. A

point. As the distance from the source increases, this sphere becomes larger and larger, and therefore its intensity decreases at each point and the probability calculated over the whole sphere must be equal to 1, because the particle must be somewhere in the sphere itself : cannot disappear. What happens when we detect the particle at a given point, ie when the detector is

activated by the presence of the photon? If the particle is detected at a certain point (for example in the point. A in the drawing, this comment is mine) it certainly cannot

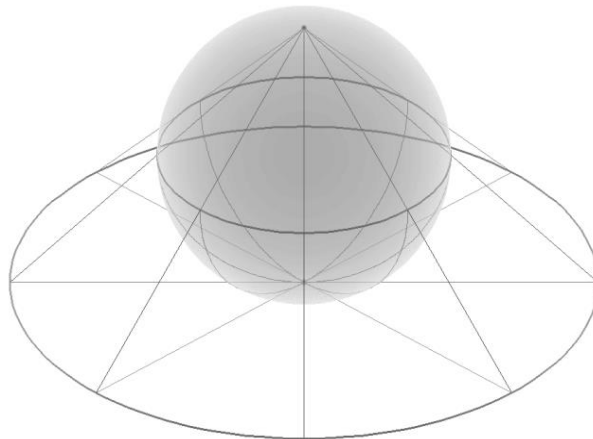
be in another point. Thus, from the moment the detector trips, the probability must immediately become zero in the rest of the sphere. "

Now, since this collapse occurs at the speed of light, that is when time stops, the radius of the sphere disappears instantaneously (at infinite speed). This phenomenon is called non-locality, or from Einstein: spectral action at a distance.

2- The four quantized logons inside the Aleph are trapped together, because when one of them is detected, all the other three are detected and the total probability of the Aleph is 1, that is certainty.

The Riemann sphere explains this phenomenon.

Let's analyze the Riemann sphere



The Riemann sphere can be seen from different perspectives complementary to each other. At the algebraic level we consider the point at infinity as a result of the equation:

$$1/0 = \text{infinite}$$

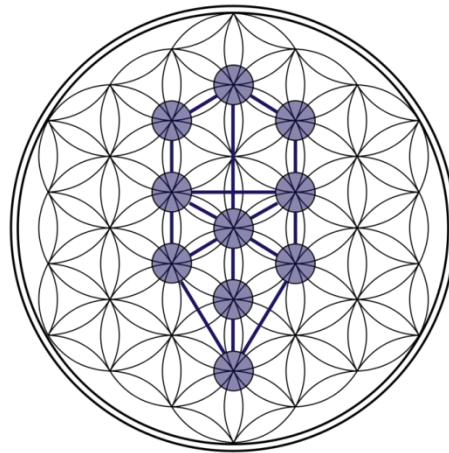
In other words, it is possible, using the Riemann sphere, to accumulate infinite geometric dimensionless probability points (points of zero size) in a single point, because the sum of infinite zeros is equal to 1.

Studying the geometrical drawing shown above, we see that it is possible to project all the infinite dimensionless points of a probability space enclosed by the Aleph in a single point, the apex of the cone, where the four logons are entangled.

In my opinion as a Kabbalist, the ancient Jews who had discovered the Symbol of God, the Tetragrammaton, had also discovered the mystery of the Aleph, which for

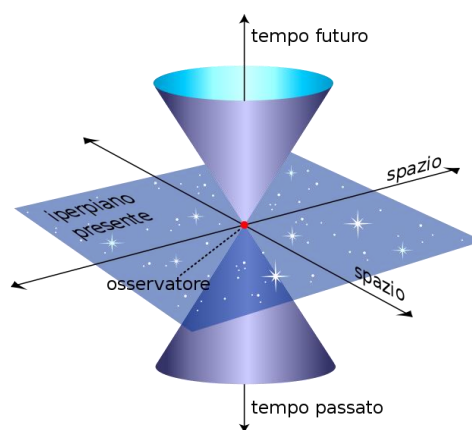
them was the first letter of their alphabet, and as such represented the beginning of Creation.

Tenth thought



The old tree of life

According to Leon, the old tree of life had to be modernized, replacing it with the cone of light of Einstein-Minkowski, and placing it in a space-time context, to understand creation.



The new tree of life

It is not useful to repeat here the concepts of Leon's logic that can be read in his recent book:

The adventures of the Cabalist Leon, Aletti publisher. All the philosophy of Leon is explained in the Talmud of Scicli and in many essays that can be downloaded from the blog: massimo melli blog on Google.

Instead it is more useful to see how Leon had tried to fill space-time with Substance.

Tiling space-time or the substance of God

Tiling space-time means completely filling space-time without leaving holes and cracks, because God is All in All and therefore His Substance cannot leave any empty voids in the Being. The substance of God must therefore fill all the infinite space-time. The reference and starting point is the cube, first of all because the cube is a polyhedron that can fill perfectly space-time, but also because we have a long-standing familiarity with the cube, which allows us to "see" it better than all the other 5 regular polyhedra, also called Platonic solids.

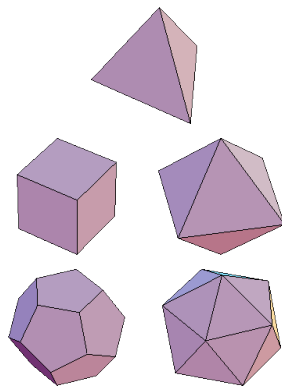


Figure 1

The five platonic solids

Intuitively we realize that infinite cubes in contact with each other, fill perfectly all the space-time. To honor the perfect symmetry that existed a moment after Creation, however, we need the distance between consecutive space-time atoms placed at the vertices of the cubes to be the same in any direction. That distance is the minimum distance that can exist in Nature between two consecutive particles, ie the Planck constant \hbar which for simplicity we can take equal to 1. * But does a cube maintain a regular distance between its eight vertices? The answer is no.

The problem is the diagonals of the cube itself and the six squares that compose it, which are subject to the Pythagorean theorem. If we take the side of the cube equal to 1, that is, \hbar , the diagonal of its faces becomes $\sqrt{2}$, that is:

1, 414213562, a number that goes on forever without ever coming to a conclusion.

The diagonal of the cube is more complicated because $= \sqrt{3}$, that is:

1, 7320508075, a number that goes on forever without ever ending.

You can eliminate the very boring $\sqrt{2}$ and $\sqrt{3}$ using the tetrahedron, which is simpler and more suitable to fill the space-time preserving the distance h between its vertices.

But can all four-dimensional space-time be filled with regular tetrahedrons? The answer is no, because gaps are always left, as shown in the figure below:

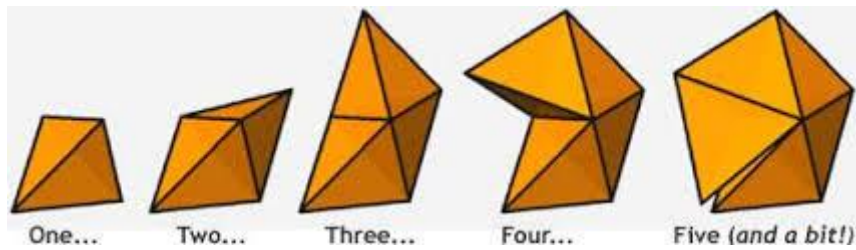


Figure 2

If we try to match more than 4 tetrahedrons together, there are empty spaces between them.

So what to do?

We can use a trick. The plane of the present of figure 5 can be plotted with regular triangles that form the base of the tetrahedra, figure 3.

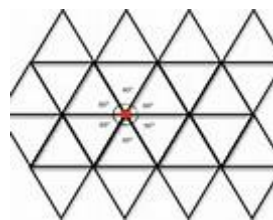


Figure 3

Then we can build a regular tetrahedron on each triangle and finally we can superimpose on that plane a second plane of regular triangles whose vertices coincide with the apexes of the tetrahedrons as shown in Figure 4 below where the space-time atoms, called "logons" are represented by small spheres of probability whose centers are at the distance \hbar from the nearby spheres. * (See note below.)

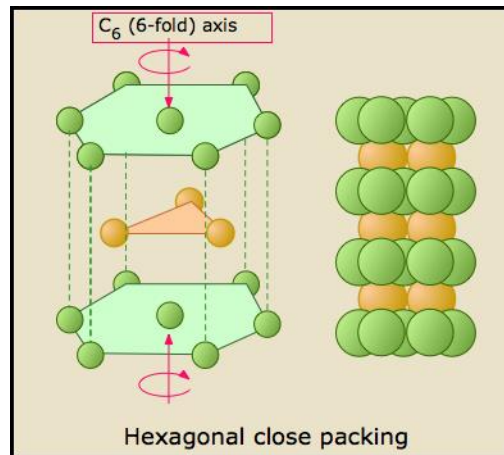


Figura 4

It is a compact distribution of logons that form a hexagonal lattice of tetrahedrons in contact with each other. The clays, which are the sediments that first settled on the sea floor, reflect this same structure, which is the most likely of all possible structures to fill a space without leaving voids. Also the silicon forms tetrahedrons joining the oxygen atoms, which are distributed according to a spatial distribution with a hexagonal symmetry. This is also the symmetry of the Diamond and of many tetrahedrons of organic substances.

In this symmetry each logon is in contact with 12 consecutive logons, six on the same plane and three on the upper plane and three on the plane below. This is the symmetry that preserves the distance of Planck \hbar between every point of space-time.

Before Creation, the Planck distance between the logons was: $\hbar = 0$, because nothing moved and time was stopped. Then in the instant after Creation the logons were separated from each other and became Tachyons, particles that travel at infinite speed, since Time stopped and a movement that takes place with time zero, occurs at infinite speed.

How did the symmetry occur? We must imagine that Creation occurred from a plane, the Plane of God, which separated the Past from the Future, as shown in Figure 5, and was therefore made up of infinite zero points (the logons).

These logons were in contact with each other, leaving no gaps, because they were of size = 0 and between two consecutive zeroes the distance was zero. They formed a unique and undifferentiated substance, the Substance of God that filled everything that existed before Creation (so it was also infinite). At the time of Creation, the logons separated, at infinite speed, preserving between them, on the first plane 0,

the distance \hbar between the vertices of the triangles, then, again at infinite speed, on the first plane 0 overlapped all the other planes that constitute reality, one after the other, at the speed of light, and always at the distance of Planck \hbar . The speed, from infinite, had slowed down and become the speed of light, because the logons had become first tachyons and then photons, when God had said: "Let there be light!" "Figure 5 shows the Hyperplane of the present, the plane of God, on which God was the observer, at the time of creation:

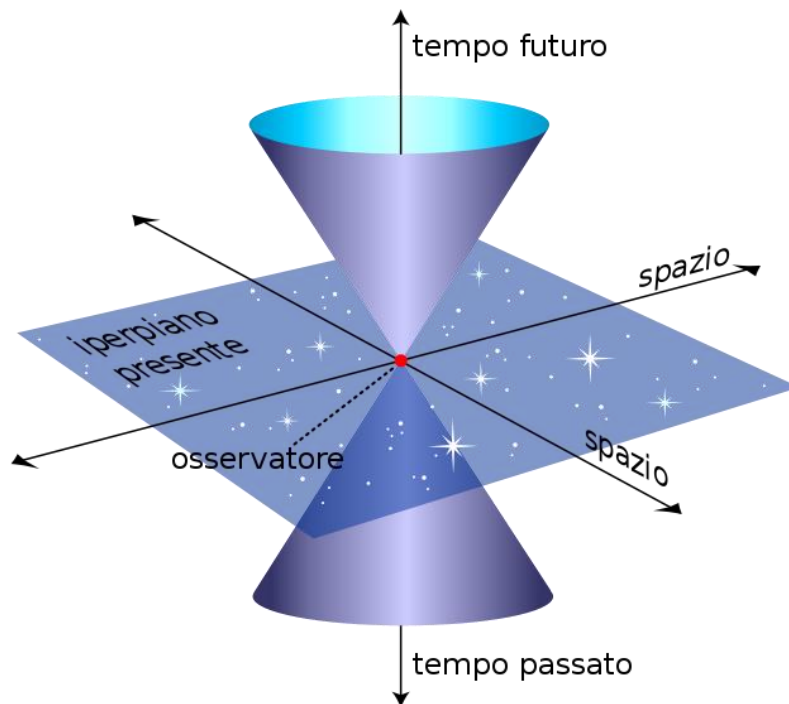


Figura 5

God, being immortal, lives naturally only in the present, because His time never passes. God has no past nor future, because His time is firm at the present.

But God, can think? Of course, using the Tachyons He can think of infinite speed. And always at infinite speed He can give orders to His infinite Substance, to make sure that His Will be done, as when he said: "**Let there be light!**" "And at infinite speed His Substance had obeyed:" ... **and the light was.** "

* Note: In reality the small spheres that represent the quantized logons are spheres of probability, within which the logons are found, which have zero dimension. The 12 spheres which are in contact with each other in this symmetry can penetrate each other so that their centers coincide with the surfaces of the other spheres, forming tetrahedra of Reuleaux. In this case the distance between the centers of the spheres decreases to become $\hbar = h / 6 = 1/6$ and the tetrahedrons become

tetrahedrons of Reuleaux, but the distance between the vertices of the tetrahedra remains \hbar , which is the smallest distance between two quantized particles, before becoming black holes.

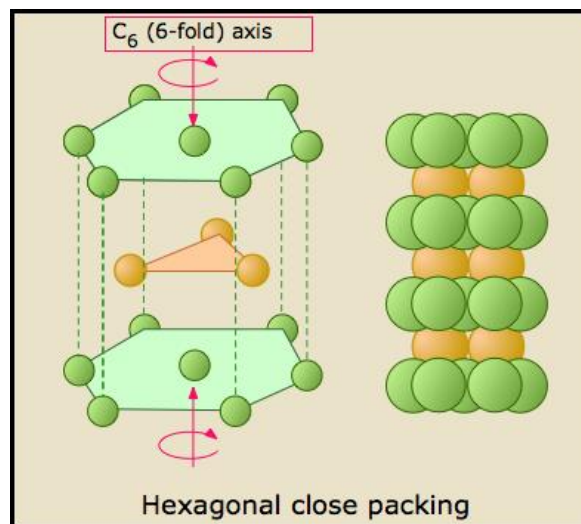
Why can't the distance be less than \hbar ?

Don't ask me, ask God, who created the Laws ...

Eleventh thought

How are the quantized logons distributed in space-time?

Here is the structure of quantized logons predicted by Leon in his essay on the ether published in Academia Edu with the title: The Mystery of the Continuum. "



It is a compact distribution of logons that form a hexagonal lattice of tetrahedrons in contact with each other. Many minetals reflect the same structure of space-time that is the most probable of all structures. This is also the symmetry of Diamond and of many organic substances.

The spheres of probability of the individual quantized logons interpenetrate each other forming Tetrahedra of Reuleaux, of which we have already spoken. They are the tetrahedrons of Reuleaux that fill all the space-time after the Creation, keeping the logons separated by the distance of Planck \hbar in all directions.

However, there is an important topic we need to talk about: the Tachyons. What are they and how are they formed?

Paradoxes of Time

Today is the Spring Equinox. Day and night have reached a brief equilibrium, a brief peace, a kind of armistice: there is an equality of temporal duration between them, for a brief moment. The sun is born exactly in the East and sets exactly in the West, ignoring the summer time. Here, on earth, a sense of astronomical justice prevails for a while now. This is the time to start thinking about Time. By now you are convinced that Space must be infinite and must extend beyond the Universe, perhaps including other Universes. Then you are convinced that all this substance that fills the space could generate a thought, a conscience, the mind of the Logos, the Mind of God. Stop for a moment to think of yourself, your problems, the existence of a God, fair or unjust, who has created all these beautiful or bad things to make you feel good or bad about the world and concentrate instead on solving some paradoxes. Of the physics of Space-Time. The first question you must ask is: how does God manage everything that happens in His infinite substance? Perhaps He is not a God who intervenes in the affairs of the Universes, but He certainly must be a God who observes, who studies, who judges and thinks. The first thing that is clear to you is that He must be able to think of infinite speed, that is instantaneously, to manage His infinite Space and make sure that His will is done. Try to solve this problem, from the point of view of the physics that is known to you: God, to think, must act contrary to the theory of Relativity. Don't worry about Einstein, it's not the first time he has to admit he's wrong.

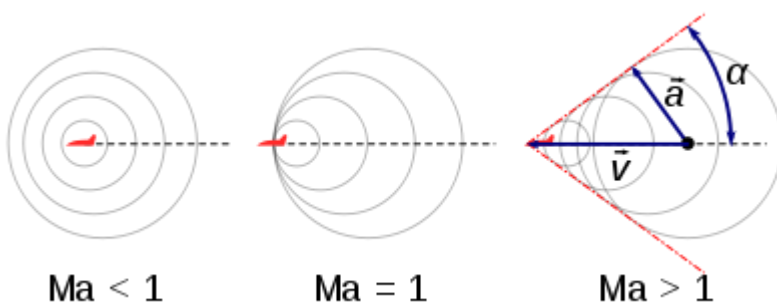
The black holes, stopping the light, have already given a big blow to his special theory of relativity that foresaw that light travels at a constant speed "c" everywhere. Einstein was the first to notice that the light was slowed by the gravity of heavy objects until it stopped in black holes, of which he doubted the existence. Already in 1919 astronomers had shown, during an eclipse of the Sun, that star light was diverted by the mass of the sun, around which it had to slow down. This exercise will help you get out of the depression of everyday life for a while, because to solve these paradoxes you will have to come out of yourself, become docile fibers of the kinetic Universe. I assure you that you will feel better later. Here is the problem to analyze and try to solve:

Super-luminal speed (faster than light). Do you think it's possible?



Lucky Luke, the fastest cowboy in the world, shoots faster than his shadow.

To do this, it must overcome the light speed barrier that cannot be overcome in the Universe by particles that have a positive mass between zero and infinity. Do you think it's possible? The model below shows what happens to an airplane when it passes the sound barrier (the sound wall) of 1 Mach.



The sound wall is located at about 1200 km / hr in the air (a Mach). When the plane reaches the sound wall, the sound waves that were previously concentric accumulate in one place, the wall of sound. So if $Ma > 1$, the plane passes the wall of sound, it passes beyond the center of vibration of sound waves "a" leaving behind the sound and creating a bang, a "bang". Peace falls in the plane.

The wall of light is at 300,000 km / sec in a vacuum.

Since the speed is equal to a space divided by a time: $V = S / T$, even for light this formula is valid, only that we must write C (celeritas) instead of V, because of Einstein who was always a bit snobbish and he used Latin when he could.

So let's write the formula for the speed of light: $C = S / T$ where $1 / T$ is the inverse of time, ie the inverse of 1 second, ie 1. What happens if time is half a second? The

inverse of the time $1 / 0.5$ becomes 2, so C doubles, because 300.000 divided by 0.5 becomes 600.000 But Einstein says that this is not possible because at that speed the mass of the particle would become infinite, in other words it would create a wall of light, a wall impenetrable to the mass.

Let's see why. We study the relativistic correction proposed by Einstein to make to the mass of a moving particle and do not worry about this formula, even I managed to derive it (after a week of intense overheating of my poor gray matter):

$$m = \frac{m_0}{\sqrt{1 - \left(\frac{v}{c}\right)^2}}$$

Since the movement creates kinetic energy, the mass m of a particle increases with the speed according to this formula, where m_0 is the resting mass of the particle, when it is still, and the term in the denominator (called gamma correction) represents the square root of 1 minus the ratio to the square of the velocity of the particle v , when the particle moves, divided by the speed of light c . When this ratio is equal to 1, since the speed is equal to that of light, the gamma correction of the denominator becomes the square root of $1 - 1 = 0$. Since each number divided by zero becomes infinite, if the mass of the resting particle is different from zero, the particle acquires an infinite mass, which is impossible, because to do this an infinite energy would be necessary, due to the equivalence between mass and energy. In other words, the wall of light intervenes to prevent it. Only if the particle has zero resting mass, like the photon, the relativistic correction becomes $0/0 = 1$ and therefore the photon does not modify its mass, which remains the same, that is zero, because $m_0 \times 1 = m_0$

Note that to simplify the calculations the speed of light c being always a constant is always taken = 1 at the suggestion of mathematician Minkowski, professor of mathematics of Einstein, and therefore also v , the velocity of the particle, becomes a fraction of the type $1 / T$. If the particle is firm $1 / T = 0$ and therefore T , time, is infinite, since each number divided by infinity is equal to zero.

My question is: what happens if time in the formula $C = S / T$ is zero?

Note: pay attention to the division by zero invented by Brahmagupta! Be careful if the divider is at the numerator of the equation or the denominator. In the case just analyzed $v = S / T$ the time was infinite and the zero was in the numerator of the

ratio v / c , so the ratio became zero, and the particle was still, in the new discussed example instead time is zero and the zero of time is in the denominator, so the speed becomes infinite.

In other words, what happens if the movement of the particle takes place with time at rest, like in a space outside time, where time is always still, or in a black hole where the light also stops?

Should it become infinite? Einstein says that for a particle with mass this is impossible because the speed of light must be constant and always equal to $C = 300,000$ (or to simplify $C = 1$). $C = 1$ is possible only if the space is also curled up to become zero, in front of the particle, then $C = 0/0$ that is $= 1$, then the speed of light remains C . And this is what happens to the photon to allow it to travel at the speed of light. A photon has a reality only at the speed of light and its time is still, that is, a second of its time becomes infinite. But is infinite speed possible?

If a particle could travel at infinite speed, what would happen? If the particle and the light left at the same time directed towards the moon that is at a distance of about 300,000 km from the Earth the light would come in a second and the particle in zero seconds, because it would arrive as soon as it left and the light would put us at least one second to arrive. Only tachyons can travel at speeds greater than light and sometimes, under certain conditions, even at infinite speed.

Let's see why and try to understand what tachyons are.

A tachyon is a hypothetical particle, as it has not yet been found, whose squared mass is negative, that is m^2 is equal to -1 therefore $m = \sqrt{-1}$

For simplicity let's call i the square root of minus one. Then $i = \sqrt{-1}$

$$m = \frac{m_o}{\sqrt{1 - \left(\frac{v}{c}\right)^2}}$$

We apply this value of m_o to the relativistic correction formula above.

I must admit that this is a mathematical trick, to allow the imaginary mass i in the numerator of this equation to be cancelled away with the denominator, otherwise the energy of the particle would become imaginary and therefore contrary to the principles of physics. This is not the only "ad hoc" trick of mathematics to allow a particle to do extraordinary things. Think of the mass of the photon 0!

Let's start from Einstein's formula that corrects the mass due to the velocity of the particle and in the numerator we suppose that $M_0 = i \times 0.1$, that is that the particle has a small negative mass other than zero, while the term in the denominator remains as always equal to gamma. In the case of the tachyon that travels faster than light, let us suppose that its speed for example is 0.001 higher than that of light (which squares becomes 0.000001). We can therefore write to the denominator, instead of the square root of - 0.000001, to avoid the negative sign, $i \times 0.001$, where 0.001 is the square root of 0.000001 and simplify by eliminating the two i that cancel each other out. Once the imaginary numbers have been eliminated, then we will have obtained that $m_0 = 0.1 / 0.001 = 100$, a number much larger than the mass of the tachyon at rest. Imaginary terms are eliminated and the mass or energy of the tachyon is positive and real, like any self-respecting energy.

All this means that at superluminary speeds the tachyons acquire a positive mass, which increases as its speed decreases. From the formula below it is deduced that if the tachyon is endowed with mass, if the denominator becomes zero, that is, if its speed decreases until it becomes equal to that of a photon, its mass becomes progressively greater and infinite energy is needed to overcome the light barrier. If instead the tachyon resting mass is zero, when its speed becomes equal to that of light, the tachyon turns into a photon. Study the equation again:

$$m = \frac{m_0}{\sqrt{1 - \left(\frac{v}{c}\right)^2}}$$

When $m_0 = 0$ and also the denominator becomes square root of zero, $0/0 = 1$ the tachyon becomes a photon. This ability to transform into one another is truly beautiful!

Now let's talk about Tachyons, which are particles of negative mass that travel faster than light. What does negative mass mean? What are they actually? They are possibly quanta of "expansion", more similar to ultrasound than to particles. They are exactly the opposite of the matter, although not antimatter. Most likely they are formed due to explosions occurring in black holes, in the absence of time. They also occur when small spontaneous explosions occur, caused by quantum fluctuations, outside the kinetic universes, where time is at rest or almost at a standstill. They help God to think at infinite speed, linking together the various time bubbles of his substance. Not only do they travel faster than light up to infinite speed, but they cannot travel below the speed of light, otherwise they would require infinite energy

to overcome the wall of light. They can easily travel at infinite speed if their energy becomes zero and their mass is therefore zero, due to the principle of equivalence between energy and mass expressed by this famous Einstein equation:

$$E = mc^2$$

This is easily understood studying this equation that corrects the speed of the particle with the correction gamma:

$$E = \frac{mc^2}{\sqrt{1 - \frac{v^2}{c^2}}}$$

When the term in the denominator becomes infinite, because the particle travels at infinite speed, and mc^2 becomes zero, because each number divided by infinity becomes zero, and therefore the tachyon's energy becomes zero.

This fact is very useful to God, because it allows Him to think with zero energy outside the Universes!

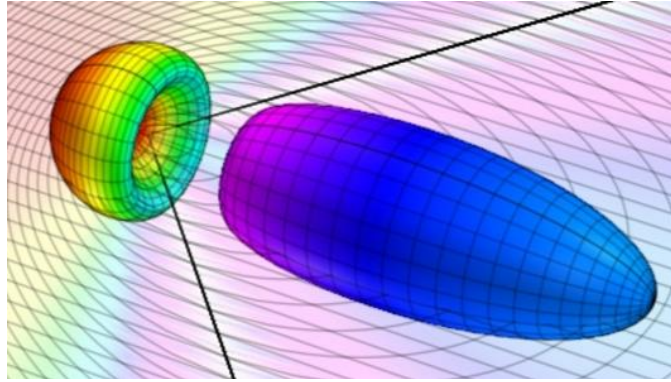
Another fact to consider is that if you travel at the speed of light, you no longer make a "shadow" because you travel at the same speed as photons. But a tachyon not only does not make a shadow. It precedes its shadow which is bound by photons. This explains what God said to Moses when he asked him: Can I see your face?

God answered: No, you can only see my back.

The most obvious explanation is that God, being outside of Time, can only communicate "through the Tachyons" at infinite speed (or almost).

Well now we understand the reason for this strange divine behavior. I quote what I wrote in Scicli's Talmud about God:

God is therefore the Logos, the Thought, the Consciousness of Existence and yes, God can think! But we don't know how. We can quote the Bible on this subject where the prophet says: "*For my thoughts are not your thoughts, neither are my ways your ways, saith the Lord. For as the heavens are higher than the earth, so are my ways higher than your ways*" (Isa: 55, 8,9).



A tachyon

Is the Holy Spirit made of tachyons?

Here is what Leon said:

"It will be a long time before I can answer Ugo Cristina's question, (how did God transmit his Word to space-time when he said:" Let there be light? If there was still nothing and no one listened to him?)

Fortunately the Evangelist arrived and I asked him the old question: "How could God create the light with his Word: **Let there be light**? How did the sound spread if there was no air?" I briefly explained my theory of Tachyons, which I think can travel at infinite speed even when the Energy is zero and Time is at a standstill and I said: "I think God sent Tachyons to create light!"

But the Evangelist replied: "No, he created light from nothing!

I can go to the sea and tell the waters to stop, but the waters don't stop. But God can stop the waters and open the sea for his people! "

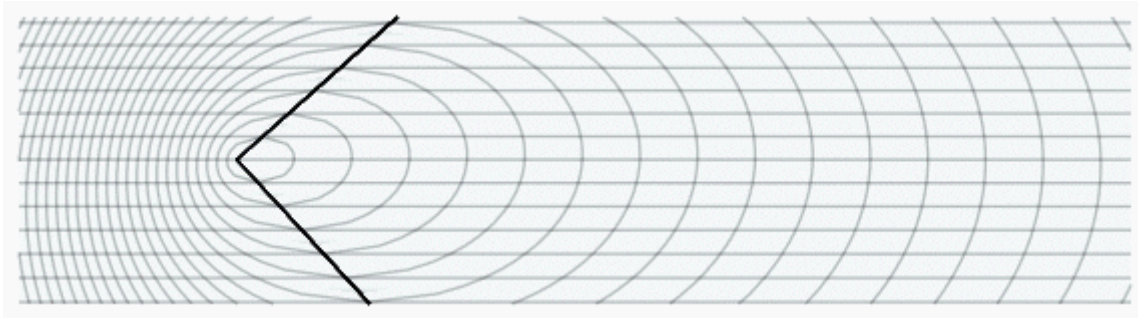
But I replied, with barely concealed sarcasm: "There was nothing, when He created the light, there was only Him, God!"

And the Evangelist immediately replied: "God is Pure Spirit and can do whatever he wants!"

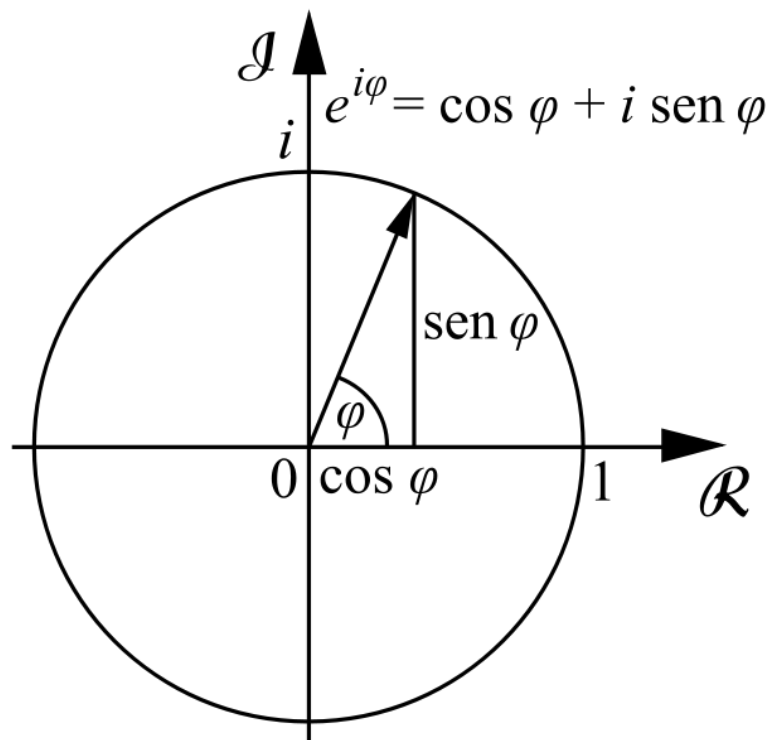
And I concluded: "Then the Pure Spirit is made of Tachyons ... there is no doubt on this truth ..." Then I left with the excuse of taking a walk to keep my swollen feet going and the Evangelist left shaking his head. "

(the Kabbalist)

Below the image of a Tachyon, which is not seen, because it has already passed.



Mathematics of Tachyons



Trigonometric representation of Euler formula.

The tachyons

Tachyons are hypothetical particles predicted by string theory and by Gabriele Veneziano, an Italian theoretical physicist and pioneer of string theory, who concluded that the lightest fundamental particle expected from that theory must be a tachyon. Precisely because Euler's formula describes the trigonometric representation of imaginary numbers on the

complex Cartesian plane, Veneziano had noticed the exceptional utility of Euler's formula to describe the mathematics of string theory and the existence of tachyons, which are hypothetical particles having imaginary mass and speed higher than that of light.

According to Wikipedia, the first theoretical-conceptual description of tachyons is attributed to Arnold Sommerfeld, while attempts at interpretation within Special Relativity were made by George Sudarshan in 1962. The term "tachyon" was first used by Gerald Feinberg in 1964.

In modern physical research the concept appears in various contexts, in particular in String Theory and Theory M. The Kabbalist Leon, in his book: The Talmud of Scicli, had predicted the existence of tachyons, which he had called Angels Messengers, to allow God to instantly control His infinite Substance.

Euler's formula

The Euler formula, which serves to represent trigonometrically complex numbers with Cartesian coordinates, states that, for every real number ϕ (which represents an angle) we have:

$$e^{i\phi} = \cos \phi + i \sin \phi$$

where e is the base of natural logarithms, i is the imaginary unit and sine and cosine are trigonometric functions. Note that the exponential function:

$$e^{i\phi}$$

in the Euler formula consists of a real cosine which is added to an imaginary sine, forming together a complex number.

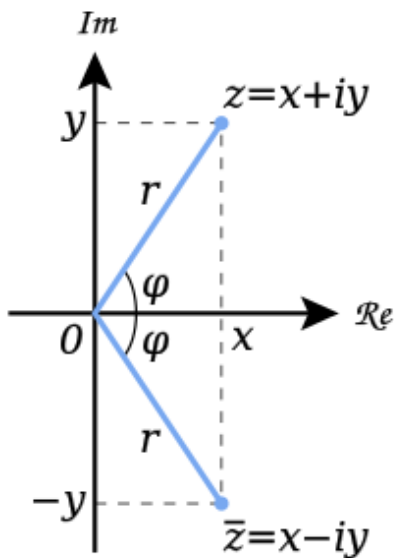
What is it for? It is a relation used to represent complex numbers in polar coordinates. The representation of the function:

$$e^{i\phi}$$

in the complex plane is a unit circle, that is, with radius = 1, and ϕ is the angle that a segment that connects the origin to a point of the unit circle forms with the real

positive axis, measured counterclockwise and in radians. Simply put, it serves to represent the complex numbers consisting of an imaginary part and a real part in a trigonometric way, easy to study.

Here is the explanation:



If the X axis of the Cartesian coordinates represents real numbers and the Y axis represents the imaginary numbers, the position of the points of the complex plane will have a real part and an imaginary part.

Identity of Euler

A special case of the Euler formula is that in which the angle $\phi = \pi$, because then the $\cos \pi$ (that is 180°) becomes -1 and $i \sin \pi$ becomes 0 , resulting in the relation:

$$e^{i\pi} = -1$$

And then in Euler's famous identity:

$$e^{i\pi} + 1 = 0$$

Why is Euler's identity important for mathematics and physics, but above all for the Kabbalist Leon? The reason is: because it contains all the main mathematical constants in an elegant formula:

- 1- The number e of Nepero, which is the basis of natural logarithms.
- 2- The imaginary unit i which represents the mass of the tachyon: $i = \sqrt{-1}$
- 3- The number π which is a fundamental element of the Tetrahedron of Reuleaux, foreseen by the Geometry of God of the Cabalist Leon.

4- The number 1, which in addition to representing the neutral element of multiplication represents the Unity of God.

5- The number **0**, the neutral element of addition, but also the beginning of all things in space-time and the resting mass of the photon, which Leon had christened **Logon**.

6- The 0 also contains infinity since zero is given by this formula: $1 / \infty = 0$.

The first time you begin to understand the identity of Euler you cannot help but be amazed by the mystery that its simplicity contains in so few symbols. Numbers that come from completely different contexts of mathematics cross their destinies in an equality that could not be conceived more simply.

For Leon, of course, that simple formula contained all his three fundamental numbers to describe the mathematics of God, namely 0, 1 and ∞ in addition to the fundamental numbers to describe the geometry of space-time.

According to Leon that simple formula perfectly described the **tachyon**, whose mass at infinite speed became zero, but that zero contained all the reality, positive and negative that described the Existence because it was the sum of:

$-1 + 1 = 0$ since:

$$e^{i\pi} = -1$$

And therefore:

$$e^{i\pi} + 1 = 0$$

Faced with what was considered by most mathematicians to be "the most beautiful formula in mathematics", Leon found an insurmountable difficulty in trying to perceive its meaning fully, and could not help but surrender in finding a greater depth than he could imagine. How come the two constants e and π , coming from different areas of mathematics, were linked by the imaginary number i in such a simple and fundamental way?

Just to create that famous number - 1?

That number which together with: $i = \sqrt{-1}$ represented the mass of the Tachyons that balanced with their negativity the positive world of the Logons, the fundamental building blocks that constituted the Being.

Was the result a zero, which contained all Reality?

Were the Buddhists right who depicted reality with the unity of the two opposite poles Yin and Yang?



The Festival of Light

August: door of winter. With the end of August, the Christmas Festival and the Festival of Light are approaching.

Best wishes to my Jewish friends for the Hanukkah festival. The festival of Light and Splendor ... but my aim is to explain that string theory has two types of light: the colored one (yellow-blue) made of photons and the dark-black one, made of tachyons. Physicists uselessly try to get rid of tachyons, strange particles that jump out of their equations and behave contrary to the Theory of Relativity by traveling at speeds greater than light up to infinite speed. It is impossible to eliminate them, because they are "the darkness on the edge of the abyss" of Genesis, from which the Creator created the World.

Here is what the Sefer ha- Zohar says about the first light that was created from the abyss of En Sof:

"In the beginning" {Genesis 1: 1} - when the will of the King began to take effect, He engraved signs in the celestial sphere {which surrounded him}. Inside the hidden depths a dark flame emanated from the mystery of the *En Sof*, the Infinite, like a fog forming in the formless - enclosed in the circle of that sphere, neither white nor black, neither red nor green, of no possible color. Only after this flame had begun to take on size and measure did it then produce radiant colors. From the deepest center of the flame sprang a fountain from which colors were emitted and spread throughout the Inferior, hidden in the mysterious concealment of *En Sof*. The spring erupted but did not penetrate the ether of the sphere. It could not be recognized until a hidden supernal point shone under the impact of the final fissure {**hokhmah**} (the ideal thought of Creation). Beyond this point nothing can be known.

Therefore it is called *reshit*, principle - the first word {**out of ten**} by which the Universe was created. "

—ZOHAR I.15a

Comments of the Cabalist:

Note that the first flame was dark. Why ? It was obviously made of Tachyons, that travel faster than light, so they are "dark". Why ? Because Time was at a standstill, and the speed of the first flame was infinite ...

Then little by little the King said: "Let there be light and light was."

An encounter with the Word

As he grew older, the Cabalist Leon looked more and more like his father: not physically, but mentally.

Even his father had begun to suffer from hallucinations around the age of ninety. Only that Leon was precocious in everything, and had begun to hallucinate two years before he was eighty years old. Like his father he slept very much and sleeping in an armchair he dreamed of a bit of everything.

First he had dreamed of the Devil, then he had dreamed of himself while trying to find the system to eliminate π (Greek Pi) from space-time with some trick, because he had discovered that π could not be easily eliminated from the space-time geometry . As is known to his readers, Leon had tried to reconstruct the geometry of Spinoza's Substance, which was infinite and compact. To do this, he had been forced to invent small spheres without dimensions, that is, with radius 0, which he had called logons and which had the property of filling all space-time without leaving voids. Unfortunately the geometry of the sphere foresaw the existence of that very boring π (Greek Pi) that polluted the perfection of the Substance. Not being able to eliminate it, at least he tried to reduce the effects of π by trying to find its square root, or its square, to see what happened. The problem was this: reducing it to zero, it stopped creating holes of nothing in the Substance of God, but turning it into a square root or a square it was easier to fill the space-time so that it could be

measured! Leon's problem was that by adding up all the zero-dimensional space-time atoms, he arrived at One, but that One was zero-dimensional. If he could fill it with tiny squares and with cubes, he could build a more understandable space-time.

It is known that Pi Greek is the area of a circle of radius 1 that is:

$$A = \pi r^2$$

By reducing to zero the radius r it was possible to fill all the Spinoza Substance with zero-sized atoms, and therefore, since between a zero and its next, the distance was zero, one could fill all the space-time with dimensionless atoms, that eliminated the void. But what if the radius became π ?

Could the quadrature of the circle be found, ie the area of a square whose side was π ?

The π is an irrational number, so it cannot be written as a quotient of two integers, as demonstrated in 1761 by Johann Heinrich Lambert. Furthermore, it is a transcendental number (ie it is not an algebraic number): this fact was proved by Ferdinand von Lindemann in 1882. This means that it is impossible to find a rational number of which π is a root. Above all Leon had discovered that π was a divine number, despite being a diabolical number, which left an indeterminate hole in the substance of God. How was it possible to eliminate it? Its dimensions could not be reduced, finding its square root and even reducing the radius to 0 that π was always there until the end, because it was intimately connected to the Substance of God. But could π be squared to realize the quadrature of the circle?

At least, reducing it to zero, it stopped creating holes of nothing in the substance of God, but turning it into squares it would be easier to fill space-time?

But were his hallucinations part of reality of another dimension in which he found himself dreaming?

It was necessary to ask God directly. And so it was that Leon used one of his usual tricks to get certain answers. He had a hallucination and dreamed of the **Word** that having become **Man** more than 2000 years ago, he had become very old. The old man with a short white beard, sat on a stone bench, under Leon's favorite carob tree and Leon immediately recognized him because he looked like Paolo Villaggio. Not knowing how to call him Leon said, "Excellency, could you help me find the square root of π or the area of the square of side π ?"

In response, God (Paolo Villaggio) said: "Don't call me Excellency, call me Immensity, because that is the only true quality I have left since I retired and I got rid of

everything else ... Since I was getting bored of the monotonous work I was doing, also because I knew the result of everything that happened for thousands of years, I decided to give up the security that omniscience gave me, and I opted for a more authentic lifestyle, similar to yours. In other words, I gave up knowing the future, limiting myself to living a more natural and interesting life, like you men. I have not the faintest idea of the future or of the square root of π ... My Substance is infinite and I don't know why it is. And I'm fine anyway ... "

Leon was astonished, because he believed in the Divine Omnipotence and therefore stammered this question: "But Immensity, how can you manage to be in a point when your Immensity is infinite? "

" Good question. I have kept the ubiquity, which allows me to be both here and there, at the same time ... But don't ask me why, for the simple fact that I have no idea how ubiquity works! "

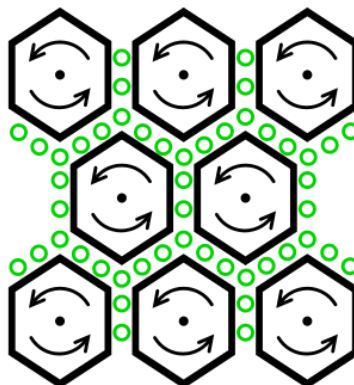
Leon cautiously ventured to say: "Maybe it works in a way that conforms to Quantum Mechanics? Like Schroedinger's cat, is your Immensity at the same time both here and there, until a man like me collapses your wave function into a point? "

God was about to answer, but at that very moment a mosquito-tiger bit Leon in one hand and Leon woke up.

Thus we will never know God's answer to that question, but Leon, to paraphrase Spinoza, said: "If God is all that exists, we expect Him to behave according to the laws of His Substance, even if now He persists for fun to ignore how they work! "

Twelfth thought

The synthesis of all these thoughts is expressed by the Cabalist Leon in this short essay: "God's gears: From molecular chaos to life" (Peter M. Hoffmann, 2014)



The gears of God

The harmonious beauty of Creation and the millimetric completeness of our body are the prelude to the famous Interrogative: how is it possible that such perfection comes from Nothing? Very sad but it seems that this is the case, after having read "God's gears: From molecular chaos to life" (Peter M. Hoffmann, 2014). In fact, despite the title, there is no trace of a Creator in the articulated scientific disquisition on the origin of life set up by Hoffmann (currently teacher of Physics and Materials Science at Wayne State University in Detroit).

I agree perfectly with Hoffmann that they are always Chaos & Necessity (a roll of the dice bent to the laws of physics) to dictate the rules of what is and what is not. In other words, even more direct: the chaotic - therefore "random" - movement of molecules, combined with the need given by physics, is all that is needed and is necessary to explain the existent. The rest is unnecessary added value, pure science fiction, abstract theorem for its own sake?

On this last point I do not completely agree.

I agree with Hoffmann on everything he says and I must admit that I learned a great deal from him, reading his book. The only point in which I allow myself not to agree with him is the concept of space-time, which is not an inert substance for me, but the "Substance of God". For me the laws of physics, mathematics and chemistry are the Laws of God and mine is a "vitalist" hypothesis which states that in practice: everything that animates living matter giving it a purpose, would arise from a "substance" fine, invisible, divine, (the ether of Nahmanides and Spinoza). I am a Pantheist, follower of Spinoza and Einstein ... and for me Chaos & Necessity are laws of God.

The difference between me and Hoffmann is therefore perhaps only a detail: while for Hoffmann everything starts from Nothing and a Divine Mind is not necessary to the two fundamental ingredients of his theory that are Chaos & Necessity, for me the Initial Zero is not nothing, but Probability 1, ie Certainty. In fact, for years I have tried to explain that that initial Zero contained within itself all the Potential to build the Future.

(See my book: The Talmud of Scicli, downloading it for free from Google)

But let's see what Hoffmann taught me with his very interesting book.

Discussion

The thesis of this book is that Life is not created by a "divine design", nor by the Chance alone without divine intervention, but is instead the result of a balance between Chance and Need. In Nature, everything is the result of this balance.

While it is easy to explain what the chance is, necessity requires an additional explanation, because it is not a purely intuitive concept.

Necessity can be defined as the result of physical forces acting on random events. Events can be random, happen randomly starting from Chaos, but they must obey the laws of the physics of space-time in which they occur.

And this is Hoffmann's great discovery.

This concept applies equally to the Galaxies, as to the Stars, Planets and proteins, and finally, to DNA and the human Genome.

Life, therefore, like everything around us, is a complex game that is played on the chessboard of physics and chemistry.

The development of a complex organism needs information on the structure of the proteins that compose it, written in the DNA, but also of space and time, of physics and chemistry that exist beyond DNA.

Evolution, like Life, is also a game that takes place on the chessboard of space-time and physics and chemistry. The outcome of the Evolution cannot be determined a priori, because the future is always uncertain and subject to its Probability of occurrence.

Very important for Life is the Second Law of Thermodynamics, which can never be violated by any vital process. The thermal agitation of the molecules and the tendency of the heat to move from warmer systems to colder systems, are used by the chemical-physical reactions that direct the becoming in the right direction, obeying the need to honor the laws that are part of the structure of the reality.

Everything's fine so far, everything perfectly acceptable.

But Hoffmann is a physicist who has studied biology, and in spite of how much intelligent and ingenious, he is not a Kabbalist, let alone a Pantheist who must respect the millennial wisdom of the Hebrew Scriptures, from the Torah to the Talmud to end up with the Kabbalah. In his analysis he has forgotten the Principle of Equivalence between Inertia and Gravity discovered by Einstein. We do not underestimate the role of gravity in influencing the life processes in the kinetic Universe. We also do not underestimate Inertia and its strange laws. What kind of life would exist outside the Universe, where perhaps other laws reign, where instead of gravity perhaps eternal expansion or stillness reign?

But if we take away all the matter and all the energy, we will never be able to eliminate what exists, that is the Being endowed with Existence, that is the "perfume of God".

In other words, in the void that Hoffmann created at the act of Creation, he forgot

about the Scent of God, which is the Ether. Being cannot be eliminated, because it is, and non-being is not. If you take away everything, the continuous remains, the space-time that pervades all that exists and within which all reality floats. The Ether that with its divine presence, with its structure, with its geometry, influences the becoming.

For the Jews, the Christians, the Muslims, the Buddhists there is something out there, something whose presence cannot escape us if we are honest. Some call it God, others the Being, others the Eternal Father, others Allah, others (the Pantheists) the One. He was given 99 names, a thousand attributes, infinite potential, absolute omnipotence and infinite wisdom.

That is the Unknown God.

For me everything is clear: the chessboard on which the game of life is played is the substance of God, also unknown.

To conclude here are the conclusions of the ancient Hindu Song of Creation:

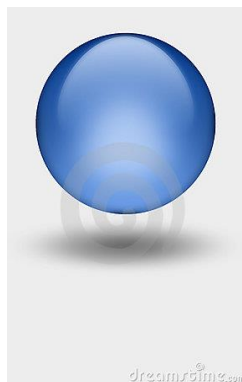
Whence all creation had its origin,

He, whether He created it or did not create it,

He, who oversees everything from the top of the heavens,

He knows, or maybe, even Him doesn't know.

The symmetry of God



Considerations on the mathematical symmetry of God

Arithmetic and elementary algebra show that often, by performing a certain operation on sets consisting of numbers of a certain type, the result is still a number that belongs to the same category.

The simplest example is provided by the set of rational numbers (numbers a/b such that a and b are integers and b is other than zero), when considering the multiplication operation: the product of two fractions, $3/5 \times 4/7$ is still a fraction, $12/35$. Moreover, for any fraction, $21/7$ for example, there is always another, the so-called inverse (in this case $7/21$), such that the product of the two is always equal to 1 (in this case $21/7 \times 7/21 = 1$) since $3 \times 1/3 = 1$. These two properties, which hold for the whole set of rational numbers, are common to many other systems of numbers, finite or infinite, equipped with operations other than multiplication. For the purposes of this behavior what is of interest is not "the calculation" with its final result. The identity of the individual numbers passes to the second line, what matters is their belonging to the whole, their behavior following the operation that puts them in relation to one another and the fact that the result is still a number which belongs to the starting group.

If instead we take the fraction $1/\infty = 0$, and its inverse $\infty/1 = \infty$, things don't quite square. Their product is: $1/\infty \times \infty/1 = 1$, and therefore this result confirms that the two fractions $1/\infty$ and $\infty/1$ belong to the same category of rational numbers. The problem is accepting that the ∞ is the inverse of 0! Or not?

If we accept this "truth", perhaps we have discovered a new mathematical law, which up to now we did not know, or we have taken a step forward in understanding the laws of mathematical logic. And what does this result mean for theology? If ∞ is the symbol of God, which besides being infinite is also 1, is it possible that 0 is its inverse?

Of course, because the mathematics of God shows that $\infty \times 0 = 1$ and therefore it confirms that it is all true, and everything conforms to mathematical logic because we have seen that

$$\infty/1 = \infty \text{ and } 1/\infty = 0, \text{ so multiplying } \infty \times 0 \text{ is like multiplying } 1/\infty \times \infty/1$$

Here is the demonstration:

Starting from the concept of limit of mathematical analysis, we have seen that 0 is the accumulation point of the $1/n$ series for n tending to infinity.

That is:

Lim of $1/n$ for n tending to infinity = 0 so we can write

$$1/\infty = 0$$

And its mutual:

$$\frac{1}{0} = \infty.$$

These are the equations of Brahmagupta.

From the equation above $1 / \infty = 0$, which we have shown to be true for all numbers except ∞ (since $\infty / \infty = 1$), we can derive the reciprocal equation that explains the effects on space and time of light speed:

$\infty \times 0 = 1$ which is obviously true, however we try to understand what it means.

It means that God is the sum of all that exists, because it is an Infinite that can only be counted with a number: 1.

Now we have taken another step forward, showing that mathematical zero (that is, the empty set of mathematics) is the inverse of God ... This should not surprise us, in fact we must admit that 0 and ∞ have much in common. Both are at the two ends of a long road, 0 at the bottom of a black hole, whose bottom is impossible to reach, if you fall into it at the beginning of the road, and ∞ it's at the end of the road, lost in a fog at the bottom of an infinite blue sky. They have similar mathematical properties: for example, when squared they are identical to themselves and are also the square roots of themselves. They disappear and both become 0 if subtracted from themselves, such as $0 - 0 = 0$ and $\infty - \infty = 0$. They become themselves when they are added or multiplied by themselves, like this: $0 + 0 = 0$ and $\infty + \infty = \infty$, and $0 \times 0 = 0$ and also $\infty \times \infty = \infty$, but when we multiply them together, they become the unit of everything: $\infty \times 0 = 1$. They are also capable of becoming 1 if divided by themselves: $0/0 = 1$ and $\infty / \infty = 1$.

It is possible to distinguish them only when any number is added to them, because:

$$0 + n = n$$

$$\text{And } \infty + n = \infty$$

But they become equal of course only if you add to 0, $n = \infty$

We can say that they are reciprocal only with respect to the operation:

$1 / 0 = \infty$, because $\infty \times 0 = 1$, but not for all the other numbers, because while

$n / 0 = \infty$ (except when n is ∞ , because in that case it is 1) but $\infty \times n = \infty$ and not 1.

If $n = \infty$, paradoxically

$$\infty / 0 = \infty \text{ and } \infty \times \infty = \infty$$

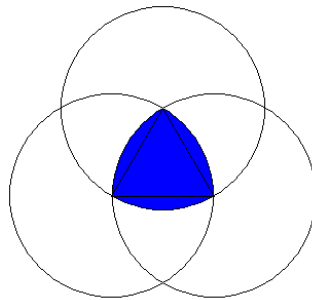
The length of the side of the tetrahedron of Reuleaux

Starting from the equilateral triangles whose vertices have the property of being at the same distance from the opposite vertices, let's try to find the system to fill the space-time completely, without leaving voids.

Why ? Because if it is true that the Substance of Spinoza fills all the infinite space-time, the Kabbalist Leon wonders: how is it possible that we can fill *Everything* without leaving voids?

The trick is: starting from a special equilateral triangle: a triangle with curvilinear sides, called Reuleaux's triangle, which is obtained by tracing from each vertex of an equilateral triangle an arc of a circle whose radius is the side of the triangle and for extremes the opposite vertices .

Here it is:



That curvilinear triangle has constant amplitude, that is, given any point of its circumference, its distance from the opposite vertex is always equal to the radius r , since each side of the triangle represents a section equal to $1/6$ of a circumference of radius r .

With respect to the equilateral triangle whose vertices are equidistant from each other, the Reuleaux triangle has the notable advantage that its curved side is $1/6$ of a circumference, therefore each point of the side is at equal distance from the opposite vertex.

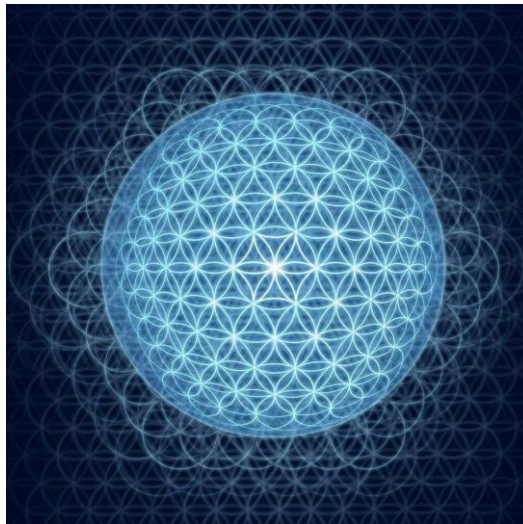
Since our particular triangle of Reuleaux consists of three arcs of circle of radius r its perimeter will be equal to $3/6$ (ie $1/2$) of the measure of the circumference $2\pi r$, that is πr .

If we take the radius $r = 1$, we see that $1/6$ of the circumference will become $2\pi / 6$ that is $\pi / 3$!

There is a spatial extension in three dimensions of the triangle that we have studied, defined as the intersection of four spheres of radius r centered at the vertices of a regular tetrahedron of radius r the tetrahedron of Reuleaux. If the radius $r = 1$, then the length of the side of this tetrahedron will be $\pi / 3$

Let us keep this fact in mind, namely that by reducing the radius of the probability spheres to 1, the curved side of the Reuleaux tetrahedron will remain $\pi / 3$ (Greek Pi divided by 3).

This is how an artist's space-time filled with Tetrahedra of Reuleaux would look. Notice those daisy-shaped structures with six petals that form when the curved sides of the tetrahedrons are added together. Those structures are formed when the probability waves are added together and are useful for forming the forces that hold the atoms of space-time together, forming inertia and gravity.



The space-time full of Tetrahedra of Reuleaux

At this point a doubt arises. Instead of h , Planck's constant \hbar is often used in atomic physics, which is: $1.0551 \cdot 10^{-34} \text{ J} \cdot \text{s}$.

The Planck constant is related to the quantization of the dynamic quantities related to the microscopic world. That value of \hbar looks too much like $\pi / 3$, to be a coincidence. Wouldn't be possible that Planck had done the same reasoning as the Kabbalist Leon to get to $3.14159 / 3 = 1.0472$, which looks awfully like \hbar ?

In plain English it is equal to 99, 25% to the length of Planck \hbar .

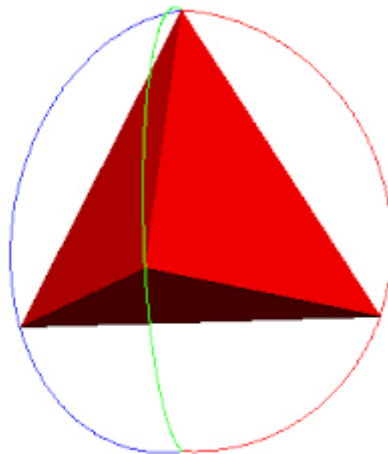
If so, then it is really true that advanced physics approaches theology!

At the conclusion of his essay: Tasselling the space-time or the Substance of God, the Kabbalist had asked himself: why can't the distance be less than \hbar ? And he replied ironically: "Don't ask me, ask God, who created the Laws ..."

But now he had the answer without disturbing God. That infinitesimal distance \hbar that could not be eliminated, out of a black hole where $\hbar = 0$, was the perfume of God of the Kabbalist Isaac Luria ...

And it was true that when you have eliminated all the possibilities and all human logic, there is always the perfume of God (π Pi) and you can never discover anything new under the Sun, as the Ecclesiastes says, because someone has already discovered before you. C'est la vie!

How was the matter created?



Regular tetrahedron inscribed in a sphere of volume:

$$V = 4\pi \frac{r^3}{3}$$

In my essay: Filling up space-time, I had shown that a tetrahedron of quantized and energetic Logons (hypothetical space-time atoms) had probably been the mold, the basic structure and the symmetry on which the neutron had formed in the first moments of the Big Bang.

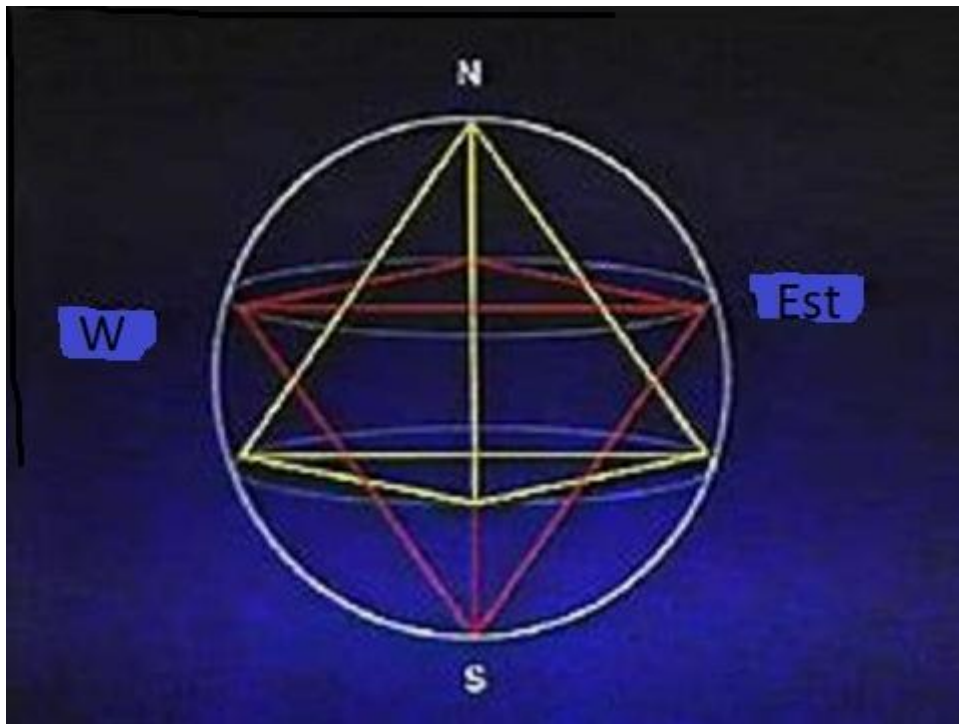
The explanation was: if the triangle that forms the base of a tetrahedron has an electromagnetic energy = 1, each of its vertices contributes 1/3 to the total, so it takes the four vertices of the tetrahedron to make a neutron, as explained in the following few sentences.

Construction of a neutron from a tetrahedron.

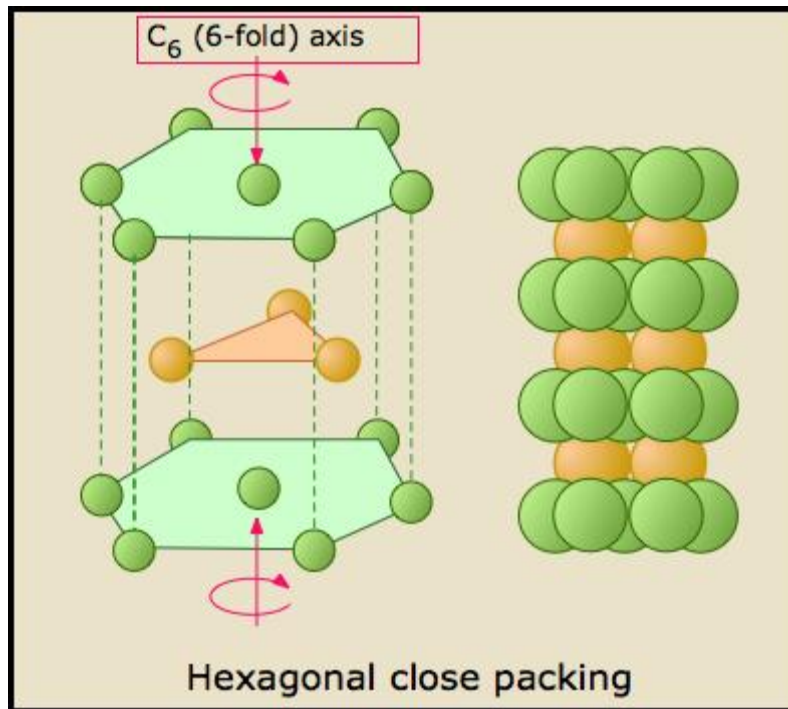
Now the neutron consists of a quark triplet: two Downs and an Up quark. The Up quark has a positive charge $2/3$ and the Down quarks have a negative charge equal to $1/3$. The positive charge can be written $2 (+ 1 / 3e) = + 2 / 3e$ and the negative becomes $2 (- 1 / 3e) = - 2 / 3e$ therefore the sum of the neutron charges is composed of $4 (1/3)$, two positive and two negative provided by each of the four vertices of a tetrahedron. If we imagine that the electric charge is due to the rotation (spin) of the Logons, two of them must rotate clockwise and two counterclockwise to create electric charges of opposite sign. As shown below, their total in a neutron is a zero charge: $Q_n = 2 (+ 1 / 3e) + 2 (- 1 / 3e) = 0$

Construction of a Proton and an electron

In the figure below two regular tetrahedrons are inscribed in a sphere with opposite orientation.



If eight quarks occupy the vertices of the two tetrahedrons that are oriented with hexagonal symmetry in four overlapping layers in ABAB mode, as shown in the figure below,



their structure allows the following calculation of the charges involved:

2 ($+ 2 / 3e$) up quarks with positive charges, to which is added a down quark with negative charge ($-1 / 3e$), to form a proton of positive electric charge $+ 1e$.

In addition there will be 3 ($-1 / 3e$) which form a charge $-1e$ of the electron which neutralizes the positive charge of the proton.

In all, the sum of the charges is $2 (4/3 e)$. That $4/3$ continues to exist.

The above describes exactly the hydrogen atom, the most abundant atom in the Universe and certainly the first to be created during the Big Bang.

In my opinion, here is the hand of the Mind of the God of Spinoza ...

Repetition

I hope you have read and digested the geometry of the book, but it is worth summarizing here the Kabbalist's conclusion.

Everything that exists in space-time has a geometry, so if God exists and is the Substance of Spinoza, it must have a geometry ...

If everything was created by the Substance of Spinoza, which is All in All and is also Thought or Logos (the mind of God) and Infinite Extension, the "Logon" should also exist, since it is the atom of the Mind of God, whose description is the following:

"The Logon is a geometric point endowed with existence and probability. It has no size nor mass and can be defined as the resting dimension, the resting mass and the resting time of the Photon. The geometric point is something that has taken its essential property from the concept of position, that of being more probably here, rather than there. Every event that occurs in space-time has its origin in a Logon, which is nothing but a geometric point endowed with physical existence and probability of existing. If space-time is an infinite sphere, each Logon, being equidistant from its infinite circumference, is its center and is here, right here at the center of space-time. Of course space-time is none other than the Substance of Spinoza, who never said that it was made up of infinite Logons, but this is the great discovery of the Kabbalist. "

How is it possible that all Logons are all here instead of there? Every point of the infinite Substance is its center, because it is an infinite distance from the circumference (this is the explanation of God's Ubiquity)

The Logons were all superimposed on the same point, a "singularity" which was 1, that is, the infinite Unity of God, which existed before Creation. That singularity was indivisible and incompressible, because it had the characteristics of God and therefore was not made up of parts.

All in one point

I copy this writing of Italo Calvino from his book *Le Cosmicomiche* for my friends.

"Through the calculations initiated by Edwin P. Hubble on the speed at which galaxies move away, one can establish the moment in which all the matter in the Universe was concentrated in one point, before beginning to expand into space.

We understand that we were all there, - said the old Qfwfq, - and where, otherwise? That there could be space, nobody knew it yet. And time, ditto: what do you want us to do with time, staying there pressed together like anchovies?

I said "crushed like anchovies" just to use a literary image: in reality there was no room even for pressing like them. Each point of each of us coincided with each point of each of the others in a single point that was where we all were. In short, we didn't even bother, except under the aspect of the character, because when there is no space, having an unpleasant person like Mr. Pber [^]t Pber [^]d is the most annoying thing.

How many were we? Eh, I could never even realize it approximately. To count, we have to break away at least a little from each other, instead we all occupied that same point. Contrary to what it may seem, it was not a situation that favored sociability; I know that, for example, in other eras between neighbors, people go there; there, on the other hand, due to the fact that we were all close together, we were not even saying hello or good evening ... "

So everything was concentrated in a point of probability 1, that is, of infinite certainty.

And you will say: then how did the Logons fill all the space-time?

The answer is: when at the moment of creation the Logons moved and became quantized, the " \hbar " distance between each Logon and its neighbors was inserted, in order to create an infinite symmetrical spatial lattice, with hexagonal symmetry, of tetrahedrons of Reuleaux. This happened at infinite speed, because when all the Logons were gathered in the "singularity" the Time was stopped and a movement that takes place in zero time occurs at infinite speed. The quantized Logons, moving at infinite speed, became technically Tachyons (although Tachyons were never found ... until now) to be able to move faster than light.

The Tachyons then slowed down their speed and became photons immediately, when God said: Let there be light! After that, by becoming photons, they traveled at the speed of light, creating a finite Universe that expanded at the speed of light.

With a transformation predicted by quantum mechanics, then some of the initial energy photons (gamma rays) were transformed into quarks within the singularity that contained infinite energy, giving rise to all the matter that exists in the Universe and that continues to expand even now (inside the blue sphere). The quarks existed only inside the Universe, while outside of it existed only tetrahedrons of Reuleaux, which filled all the infinite space. The quarks inside the Universe did not form a solid mass, much less an indivisible unity, but they were separated from each other even if they were preferably distributed at the vertices of the Reuleaux tetrahedra, forming neutrons, protons and electrons. In the dark blue area around the sphere of the Universe other Reuleaux tetrahedrons filled with their geometry all the Infinity without leaving voids.

Being compressible the tetrahedrons allowed the space to bend and deform itself in an elastic way, creating Inertia and Gravity, which are the reaction of space to the presence of the mass.

You will wonder: what happened to the Tachyons? They are logons that travel at a speed higher than light, whenever explosions occur in the absence of time. Once

infinite space-time is created, they have disappeared, but continue to live for the duration of a Zero time forming the energy and the dark mass around the Galaxies, when explosions occur inside black holes or supernovae, where time stands still. To understand how energy and the dark mass are formed and continue to form, read the next essay entitled: Waves Explained to Grandma.

You will then ask: does God have a Mind? Certainly, His Mind is all that exists and He thinks geometrically. And does he also have a conscience? Certainly, His Consciousness is the Unity of all that exists.

Waves explained to the grandmother.

If you are a bit "taken for the geometry" and you are not yet crazy by reading this book, the Kabbalist Leon offers you these simple observations that you can also explain to your grandmother.

A wave is an oscillation that, generated in a point, propagates in space, transporting energy but not matter.

Before the World was created (by whom?) the space was full of infinite geometric points of probability 1 (called logons) in contact with each other, so as not to leave empty spaces, because their whole represented the infinite Substance of God, which is all in all, and therefore could not have empty spaces. (Since the Substance is everything in everything and that nothingness does not exist, we Pantheists know that the World created itself, starting from the Substance, which is made up of infinite logons, atoms of the divine Mind.) Those points were standing still.

Paradoxically, since in the beginning between those points the distance was zero, they were all grouped in a single zero point, (but also infinite, since there was only that point) but that point was mathematically identified with the number One. His symmetry was perfect.

Then someone (who?) said to the points: move and the points, which were still, began to move. It seems that that someone was the Mind of the One, that some call God. They could also have called him Allah, or YHWH, or Zeus, but in our part of the World, in Italy, they called him God.

Now a movement that takes place in the absence of Time (because time had not yet been created) occurs at infinite speed, and the logons that began to move at infinite speed, created waves in the Substance of God. Those waves traveled at infinite speed and therefore they were called Tachyons, that is fast waves.

What are the waves?

The most immediate examples are offered by the waves that are produced on a body of water when a stone is thrown in it and propagate in concentric circles, or by the waves of the sea, caused by the action of the wind. In both cases the water, perturbed, oscillates vertically without its mass being displaced horizontally (ie there is no transport of matter). If in the waves there was transport of water, this would gradually accumulate on the shores, submerging them, but this does not happen. (Except on tsunamis)

We can easily realize that the water oscillates only vertically if we place a body floating in the area disturbed by the wave: we will see that it is not transported by the waves.

There are many types of waves, apparently very different from each other, but all can be described by common features.

The surface that delimits a wave, or the surface defined by the points equidistant from the source of the vibration, is called wave front. Depending on the shape of the wave front, the waves can be divided into flat, circular and spherical. The vibrating logons obviously created spherical waves in three dimensions (indeed in four).

Spherical waves are those that propagate uniformly in space in all directions and in which the shape of the wave front is a sphere, such as sound waves and electromagnetic waves.

It is assumed that the logons, when they began to move, had, in some ways, a typically undulatory behavior, that is characteristic of the waves described by quantum mechanics.

A good two-dimensional example is the wave created on the surface of a pond by a drop of falling water.



When the propagating wave front has passed, the water remains calm at the center of the disturbance. If we repeat the movement in reverse, a raised and turbulent protuberance will be created in the center of the circle, which will continue to exist until the waves continue to converge towards the center.

Therefore, relative to their origin, the waves can propagate towards the outside of the origin or can converge towards the origin.

Mathematically, convergence / divergence is a concept that makes reference to the behavior of a function $y = f(x)$ to the tendency of x to a finite value or to an infinite value.

In the case where x tends to a finite value, it is a matter of considering the limit

$$\lim_{x \rightarrow x_0} f(x)$$

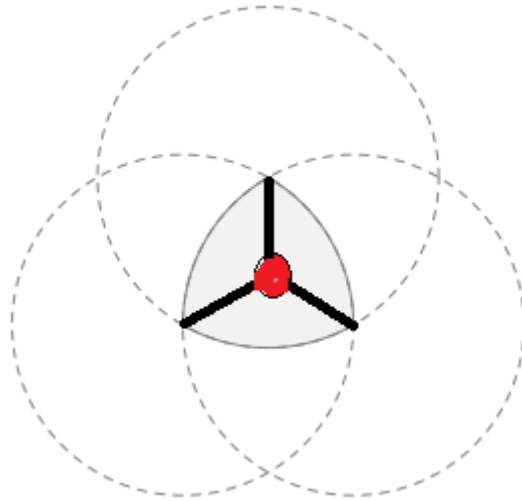
if this limit is finite, ie for example 0, we say that the function converges to the value of the limit 0 for x tending to 0, if instead the limit is infinite it is said that the function diverges to infinity (or that it does not converge).

$$\lim_{x \rightarrow +\infty} f(x)$$

Difference between equilibrium of concentric and divergent forces.

If the waves generated by a logon diverge, they compress the space-time between the logon and the logons that surround it. If instead they converge on the logon, they rarefy the space-time between the surrounding logons, creating the energetic void, exactly the opposite of what happens with convergence.

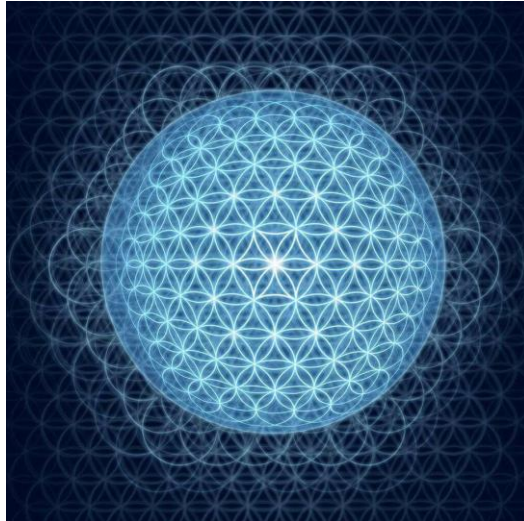
For simplicity let's take a Reuleaux triangle, which is generated by three concentric waves that vibrate on one plane, inserted into one another so that their centers are on the circumference of the other waves. If the waves expand, in the center of the Reuleaux triangle there will be a compression zone, where the expansion forces converge to a point (red).



When the Universe was created, probably at the beginning the vibrations were divergent, creating expansion and tachyons. In addition to expanding at infinite speed the logons, having become tachyons, created a hexagonal symmetry in space, formed by infinite tetrahedra of Reuleaux, at the center of which there were points of energetic convergence, the famous dark energy and dark mass. Then, when the movement slowed down at the speed of light, because Time was created, and light was formed, the vibrations became converging, creating a void at the center of the Reuleaux triangles. Why ? Probably, when the light was created (by whom?), the impassable wall of light was formed and the logons, clashing against that barrier, began to vibrate in reverse, converging towards the center of their spheres. At the center of the tetrahedrons of Reuleaux there was therefore the emptiness (which however must be remembered that it is different from nothing). Thus the Universe was formed, which, expanding at the speed of the photon, became a perturbation of space-time of limited size. Then the logons, in which the waves converged, turned into quarks and the forces due to the vacuum inside the tetrahedra, formed the strong nuclear forces that hold the quarks together and form neutrons and protons and electrons.

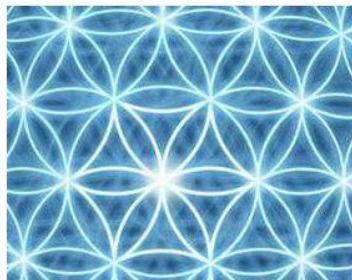
The matter was thus able to aggregate inside the Universe forming four dimensions (which include time) of the tetrahedra of Reuleaux.

This is how an artist's space-time filled with Tetrahedra of Reuleaux would look. Notice those daisy-shaped structures with six petals that form when the curved sides of the tetrahedrons are added together. Those structures are formed when energy waves are added together and are useful for forming the forces that hold the atoms of space-time together, forming inertia and gravity.



Space-time full of Tetrahedra of Reuleaux

Since the surface of the sides of the tetrahedra is curved, being $1/6$ of the surface of the sphere, when the tetrahedra are in contact with each other, daisy-shaped structures are formed in the space-time. Where the Universe expands, the central area of convergence is formed which with its energy causes expansion. Where the Universe contracts, the quantum vacuum is generated which generates the forces of inertia and therefore gravity. See below for details in a quantized and kinetic space-time segment filled with Reuleaux tetrahedra.



Part II

The laws of Human Thought

So far we have studied the geometry of the Substance of God and, in our presumption and arrogance, it seems to us that the theory works well according to a Human logic. But my friend the philosopher Antonio Thellung, in his book (Are we perhaps the opposite of God?) warns us against the arrogance of thinking of knowing, writing:

"I recognize that speaking of the divine dimension (geometry?) while being well aware of not being able to know anything about it, is a beautiful claim! As Meister Eckhart (German theologian of 1260-1328) said: "... if I could understand God, that wouldn't be God! "

In all humility, I, the Kabbalist, ask to myself: are we authorized as creatures to speak of the Creator? Are our finite and limited minds fit to understand God? After all, even the great Maimonides said: "When you talk about God, your words should be few ..." and so far I have talked too much.

This second part of the book analyzes the limits of human logic, from different points of view, to help us understand if we are fit to understand. The story of Juha, explains very well how I feel.



Juha and the party at the house of Cadì (an ancient Arab fable)

In the early afternoon, while Juha and his wife were resting, some children played near their house making a lot of noise. "Juha, why don't you go out and tell the children to stop," his wife said. So Juha went out and turning to the children he said " Why do you stay here to play instead of going to the party at the Cadì house where you can eat cakes, sweets and drink cool drinks?"

Hearing this, the children went running towards the Cadì house. Juha returned to his house and took his jacket. His wife asked him: " Juha, where are you going now?" and Juha answered running : " I go to the house of Cadì, you never know if what I said to the children was true! "

Moral of the story

His friends had asked the Kabbalist: " Leon, do you believe all these stories you tell about the Substance of God?" And Leon replied: " No, I don't believe them ... "

And then his friends had said: " Then why are you telling them? "

And Leon replied: "You never know if they are true!"

(the Kabbalist)

Kurt Gödel's Incompleteness Theorem

The logician and mathematician Kurt Gödel (1906 - 1978), with his "incompleteness theorem" is the man who finally gave the *coup de grace* to the ability of mathematics to discover the absolute truth.

Even the great philosopher Ludwig Wittgenstein (1889 - 1951) had arrived at the same conclusion only with logic, asserting: "We cannot establish a rule for the application of another rule." In other words, Wittgenstein did not believe that understanding a "game" could depend on building another game.

The mathematician Mario Livio, an Israeli, despite his name, in his very interesting book: *God is a Mathematician*, writes for us the two famous Gödel theorems and explains their implications for pure mathematics. Here they are:

1- Any consistent formal system "S" in which a certain amount of elementary arithmetic can be expressed, is incomplete with respect to elementary arithmetic propositions: there are propositions that can neither be proved nor refuted in "S".

2- For any coherent formal system in which a certain amount of elementary arithmetic can be expressed, the coherence of "S" cannot be proved in "S".

The problem is to understand why. Since this is a fundamental problem for a Kabbalist, here is the simple explanation of Leon.

You have two white hens and decide that they are the same, based on your human logic, so with mathematics you write the equation:

white hen A = white hen B

and for your logic that is the absolute mathematical truth.

But of course mathematics is not suitable for solving the problem of absolute equality of the two hens, but only that they are both white or at most that they are both hens. Each hen is in fact part of a "Boole class" or a "Cantor ensemble" containing a collection of objects or members or different qualities among the hens.

The way the equation is structured, the white hen B must be the opposite of the white hen A, because if you take it to the left side of the equation, you must change the sign, so that the mathematical equality is always valid:

white hen A - white hen B = 0

Mathematics is right because an entity subtracted from another equal entity, vanishes without leaving a change. But to preserve the mathematical truth you have been forced to sacrifice your logical truth that the hens are equal. How can they be the same if one is written with the + sign and the other is written with the - sign?

If you take the tautology:

The white hen A is equal to itself and you write the equation:

white hen A = white hen A

You are not even able to prove this absolute truth, because, if the equation is correct, the right-hand side of the equation must be taken with the minus sign (-) when you transfer it to the left so that the result is 0.

This fact becomes clear if we analyze the very simple equation:

1 = 1

This mathematical equation is used to say that the number 1 is equal to itself, but unfortunately this equation cannot be used to prove this truth, because the two 1, are in fact one the opposite of the other. If I bring the 1 on the right to the left I have to reveal its true identity, that is that it is a - 1 and not a + 1, so that:

1 - 1 = 0 which is a logical mathematical statement.

If it were + 1, then we would have the absurd result:

1 + 1 = 0

Based on the absurd mathematical premise that:

1 = - 1

That is, that 1 is equal to its opposite.

Let us now analyze another famous equality discovered by Archimedes: the lever principle.

A weight of 6 kg multiplied by a one-meter arm is moved by a weight of 2 kg multiplied by a 3-meter arm.

We can write the following equation to prove this principle mathematically:

$$6 \times 1 = 2 \times 3$$

which seems mathematically right, but the two classes (or sets) are not at all equal. A system contains the members (6, 1) and a system the members (2, 3) who have nothing in common with each other. At most mathematics serves here to say that the two quantities on the right and left are in equilibrium, or that they have the same weight. The = sign is not a guarantee of absolute equality.

The same problem applies to the dogmas of religion.

If the dogma says: Jesus is consubstantial with God, who expresses itself with the equation:

Jesus = God, we fall into the same problem. As explained above, mathematics is not suitable for expressing this absolute truth (if it is a truth) but at most serves to express certain qualities of Jesus that are equal to those of God. Example: Unity and perhaps Holiness, but equality stops there, because Jesus and God are two different sets, which contain infinite different elements.

Even if you mirror yourself, the reflected image is "specular" and does not accurately reflect who you are, but your image reversed by a zero point which is inside the mirror and which is equivalent to the sign = of mathematics equality.

But you and your mirror image are different!

So what is the solution? There is no solution, and Gödel and Wittgenstein are right.

But perhaps there is a Kabbalistic explanation.

As is known, we and all that surrounds us, we are immersed in the Substance of Spinoza, which consists of infinite zeros. We are not only immersed, but we are made of the substance of Spinoza. All our actions, thoughts and works are referred and calibrated by the zeros of the Substance of God, which acts as a filter for reality. Being immersed in the Substance and being part of it, it's impossible to decide whether the Substance moves or stands still. Like when we stop inside the train at the station and the train next to us moves, we find it hard to tell if we are the ones

moving or the other train is moving. Every event that occurs in space-time starts from a zero point, which is the sign of equality (=), the fulcrum (0) of the lever, the pin (0) of the scale.

Each action has an equal and opposite reaction and is perfectly balanced in a zero point.

So the only absolute truth that can be demonstrated mathematically is the existence of that zero. The only truth is the Substance, the God of Spinoza.

Everything else must be accepted by faith ...

Ioannes 1:14 Biblia Sacra Vulgata

“ et Verbum caro factum est “

Here is the mysterious phrase that for Christians describes the divine nature of Christ. That famous phrase is often translated "*and the Word made Himself flesh*" to highlight the will of the Word to become man, excluding the neutral action of randomness in that portentous event.

The Kabbalist Leon, after having studied the sacred texts and the grammatical logic of Latin and Hebrew, thought instead that the correct translation was "*and the Word became flesh*", without wanting it, by chance, eliminating the will of the Word . In other words, it was natural for the Word to turn into flesh, because its physical nature was by definition subject to the laws of Probability. But Leon was wrong, because he did not take into account the laws of quantum mechanics.

Let's analyze the problem according to the logic of the Kabbalist.

The Latin grammatical doctrine that he consulted suggested that every single word (in Latin: *verbum*) represented an autonomous idea, a unity of thought that the vocabulary recorded, isolated and defined. Within the Christian religion, the Gospel of John had defined God as *Logos* (in Greek), that is *Verbum / Word*, giving the idea of divinity its true meaning of Infinite Thought, from which all that existed had been created.

But the evangelist John was a Jew, even though his Judaic culture was imbued and mitigated by the Alexandrian school that had introduced the modern Hellenistic concept of *Logos* into classical Judaism, to describe God.

For Leon, therefore, one had to go back to the Hebrew concept of "*davar*" (plural *devarim*) which besides the meaning of word also had the meaning of event, fact,

action and commandment. In fact the ancient Jews identified the concept of word / thought with that of an event that by its nature has a random origin. (Compare Ezra: 7, 1 After these events: Achar ha-devarim ha-elleh). This fact for Leon was in accordance with modern physics for which there was no longer a clear distinction between the mind of the observer and the observed event. Did events occur according to the laws of probability and therefore both the Creation of the Universe and the incarnation of Christ made man were random events, which could occur spontaneously, even without the will of God? Could God's role only be that of an observer, who interacted with the event to observe it, but without necessarily imposing his will?

After years of studying quantum mechanics Leon had to admit that his doubts were unfounded and the exact translation was precisely the one proposed by the Catholic Church, that is: "and the Word made Himself flesh". (E il Verbo si fece carne: Italian)

If the Scriptures were telling the truth, the Word, observing that wonderful event, which started from His Mind, had imposed his will on the final result.

Here is why.

Quantum physics says there are endless possibilities. Anything can happen. The probability that something happens (in technical terms when the wave function collapses) is closely linked to the act of observation that becomes consistent with what we expect to see. When we observe and "choose" a specific result, all other possibilities become inconsistent with what we see and exclude. We determine what will occur and experience in our lives based on our observation point. When we begin to look at the world from many more points of view that go beyond limiting beliefs, new events, situations and synchronisms begin to appear.

Just because we believe that something is possible, we open ourselves to that possibility in our lives.

Therefore: when the Creation occurred, the Logos was the observer who directed events according to his will. When the Word became flesh, He knew what he was doing ... So even Christians could be right, why not? It was not impossible for a Jew to accept it!

According to Leon, quantum mechanics confirmed that reality exists if there is a body with the senses that relates to it. If there is no observer, events do not occur! If there is no observer it does not collapse the wave function and the Creation and the Incarnation does not occur. This is the best proof of the existence of a God (Observer as well as Creator) ...

In Principio

" In Principio creavit Deus Caelum et Terram..." Liber Genesis 1:1

" In Principio erat Verbum et Verbum erat apud Deum et Deus erat Verbum.."

Johannes 1:1

Here's what I believe. Everything else is of no use, it's just details.

The problem is: is God the Creator or are Heaven and Earth created by themselves?

Here is the dilemma. All other doubts are of no use, they are only details.

Instead of saying "oremus" and praying, let's reason.

In Principio (Bereshit) when the Universe was created (or created itself), the symmetry was perfect.

There was no Chaos, but the perfect order, because according to Boltzmann, Entropy was zero. Here is the prophecy attributed to Boltzmann: "As the entropy of the Universe increases, disorder increases, chaos increases". So if Boltzmann was right, the order had to be infinite in the Beginning and that initial One, consisting of infinite zeros, had to be perfectly ordered. Physics showed that Boltzmann was right, even though no one had believed him and in desperation, he hanged himself in Duino in 1906. R.I.P.

And here we need another definition: a state of disorder involves a symmetry between various parts that is destabilized and upset by a force or a random event. But if the parts are not there, because there is only the One, which has perfect symmetry, since it is not made up of parts (except by infinite immobile zeros), how can its symmetry destabilize itself? And if a force does not exist, because nothing moves, how can one think that that One had destabilized itself because of a force? Very well, then someone (some body?) Must have caused that strength.

Let's do some reasoning. I with my thought can give the order to my index finger to push the keys of the computer. This happens at infinite speed (or almost). So, thought = order to move, strength, obedience of the finger. But the finger is part of me and I exist.

That Spinoza's One who existed and thought (because he was Thought as well as Infinite Extension) could very well give order to the infinite zeros of his Substance: "Immediately expand in all directions of infinite Space and create Time and Light." But true atheists would say: "The expansion created itself, due to a quantum fluctuation of the void, thereby creating Time and Light ! "

But you will answer: "Yes, it was created by itself, but starting from the Substance that existed" in the Beginning ", because for quantum physics the void is full and *nothing* doesn't exist. Do you mind if we call that Substance God? "The substance

of Spinoza, which exists and is all that exists, which is everything in everything solves the enigma.

This is why I "believe in Unum Deum" ... that has always existed and that has created Himself, because He existed before He was created. Logical?

(modified from: The Adventures of the Cabalist Leon)



The creation according to the Kabbalist Leon

For Rabbi Maimonides, there are only four fundamental dogmas and 13 pillars of the Jewish faith. The dogmas are:

- 1- The existence of God
- 2- Its incorporeality (God is Pure Spirit)
- 3- His Unit
- 4- His creation of the World from nothing

Scicli's Talmud questions the four dogmas of Maimonides, because the discussion is encouraged by the Rabbis, since the Eternal Father gave us the intellect to use it and to understand. Therefore, for the Jews, everything can be discussed.

On four dogmas, after the discussion, only the existence of God and his Unity survive the analysis of modern Talmudists, while the other two are modified.

Here is why.

א בְּרֵאשִׁית, בָּרָא אֱלֹהִים, אֶת הַשָּׁמַיִם, וְאֶת הָאָרֶץ. ב

וְהָאָרֶץ, הִיְתֵה תְהוֹ וְבָהוּ, וְחָשֶׁךְ, עַל-פְּנֵי תְהוֹם; וְרוּחַ

אֱלֹהִים, מְרַחֶפֶת עַל-פְּנֵי הַמַּיִם. ג וַיֹּאמֶר אֱלֹהִים, יְהִי אוֹר;

We start from the first three verses of the book of Genesis and from the vision of Rabbi Nahmanides. According to the official interpretation of the believers these verses were written by men inspired by God and are interpreted by other men (the Talmudists and the Kabbalists) who try to understand them. In red are the key words: "*And the Spirit of God hovered over the waters ...*" These waters existed before God created the light, as the next verse describes. What are these waters?

Another famous rabbi, Nahmanides, is given the scene to explain.

The power of the human mind illustrated by this comment by Nahmanides (one of the great pillars of Judaism) on the creation of the world is astonishing. His incredible thesis would have lit a light to reconcile Max Planck's microcosm with Albert Einstein's macrocosm eight centuries later! In other words, with the sole power of the intellect (certainly inspired by the Divine Mind) Nahmanides had predicted the Big Bang exactly. Here are his words about 800 years ago! (Quoted by Aharon Nathan, co-author of the book: The Talmud of Scicli)

"... In the very short instant that followed the creation, all the matter in the Universe was concentrated in a very small point, no bigger than a mustard seed. The matter in this point was very thin, so immaterial that it had no real content. It had, however, the potential to transform itself into substance and form and become tangible matter. From the initial concentration of this immaterial substance at that infinitesimal point, the substance expanded, thereby expanding the Universe. As the expansion progressed, there was a change in the substance. This initially subtle non-corporeal substance then assumed the aspect of tangible matter as we know it. From this initial act of creation, from this ethereal, subtle pseudo-substance, all that has existed, or will ever exist, has been, is , and will be formed. "

The modern Big Bang theory illustrated by Einstein-Minkowski's space-time diagram and Einstein's famous equation tell us that creation from nothing is impossible.

$E = m c^2$ (is the equivalence between mass and energy according to Einstein)

On the basis of this equation energy **E** is needed to create the mass **m** of the Universe.

In the beginning everything was still and all the energy was potential energy, which at the time of creation was transformed into kinetic energy, the energy due to movement.

Even the Time was still and the Earth was inert and empty and the darkness was on the face of the abyss.

The typically Jewish concept of **En Sof** (the infinite) is described by the space-time diagram of Einstein-Minkowski, my favorite Prophets, along with Spinoza.

What existed before everything was created? (*Be terem khol nivrà*)

There was the cone of light of the past, formed by the substance of God, that is, from those famous waters that existed before God created light.

That was the substance of God envisaged by Nahmanides and Spinoza, which was infinite because nothing could limit it. Thus the Universe was created from that substance and not from nothing, which does not exist.

The concept of Zero which means nothing is not a Jewish concept, because: "In the emptiness that you generated always remains the Scent of God" says the Kabbalist Isaac Luria. Zero is the physical beginning of the events that occurred in space-time. So creation cannot have come from nothing, because God already existed ...

The Bible makes it clear: there were "the waters on which the Spirit of God hovered before creation." (*Ve ruah Elohim merakhefet al pnei ha-maim*) "

The Logon derives its name from Logos, the Divine Mind of the Gospel of St. John, himself a Jew, according to whom: "*In the beginning was the Logos ...*". The logon represents the atom of the substance of God, which having neither dimensions nor mass, is nothing but an inactive photon, that is the rest mass of the photon, that is the matter used by God to create light, which existed before God said: "*Let there be Light!*"

Having neither dimensions nor mass, the logon is a geometric point of space-time, endowed only with existence. Infinite logons fill all space-time without leaving gaps, because otherwise holes of nothing would be created within His Holy Substance, which is all in all. That is the Substance of Spinoza, which is identified with the "*Deus sive Natura*".

Spinoza is the modern prophet who preached Pantheism.

Spinoza's Substance is a hymn to life

I am reading the new book by Vito Mancuso (The need to think) and I am pleased to see his "drift" towards pantheism (as was to be expected from an honest theologian). I'll explain why.

The book explains that in the first Christian centuries the Fathers of the Church taught an ethic and a spirituality that was the enemy of desire, making its absence coincide with the apex of the spiritual life approved by Jesus. Origen even managed to emasculate himself at 18 and Maximus the Confessor advocated "voluntary estrangement from the flesh thanks to the complete circumcision of his natural motions (erection?)", while the rule of St. Benedict said: "... do not follow your desires."

Even the Buddha was a great extirpator of desire, defined by him as "craving" and placed at the origin of the pain of living.

Even the philosopher Simone Weil who, despite being of Jewish origin, sympathized with Catholicism, so despised her body that, still very young, she literally let herself die of hunger, to eliminate it. She said: "The purpose of all efforts is to become nothing."

That practice aimed at eliminating the flesh in favor of the spirit was so rooted in the monks that John Climacus commented: "Monk means uninterrupted violence done to Nature and incessant custody of the senses ... Withdrawal from the world is voluntary hatred and denial of Nature."

Naturally Spinoza is saved from these aberrant positions. How could Spinoza deny and humiliate Nature, which he considers God? In fact Vito Mancuso cites in his book what Spinoza says: "Everything, as it is in it, strives to persevere in its being." It is from this "conatus essendi", translatable also as a survival instinct, that comes desire, defined several times by Spinoza as "the very essence of man".

For Spinoza, all existence is Deus-sive-Nature and Thought and Infinite Extension and of course he does not shoot himself in the foot, denying Nature, which is one with the Spirit. And for me that I love the wine brand Nero d'Avola and the grilled chicken chops, with french fries, Spinoza's ideas don't make a wrinkle ... I'm sorry for the chicken, but it's not my fault that the Substance decided to turn into chicken too. After all, Everything is Substance, which feeds on itself ... (the Cabalist)

The Demiurge and The Theodicy

The theodicy (justice of God, from the Greek theos, god and dike, justice) is a branch of theology that studies the relationship between the justice of God and the presence in the world of evil.

The problem is the following: if everything is created by God then evil is also created by God and therefore God is not good. But if evil exists and God cannot do anything about it, then God is not Almighty. A third hypothesis, the existence of evil is proof that God does not exist. These are the questions a Kabbalist tries to answer.

What does Kabbalah say?

The Midrash-Konen, that is the Study of Creation attributed to Rabbi Isaaq ha-Zaqen, that is Isaac the Old, says: " The Holy of Holies created men and, against them, he created demons ... he created beasts and the animals and, against them he created the Bears, the Lions and the Leopards ... and he created the pure birds and, against them, he created the Eagle and the Vulture. "

Based on this, this passage could be interpreted as follows: God would have created tigers mosquitoes, to make us understand the beauty of butterflies and the usefulness of bees or that of ladybugs that feed on aphids, cleaning up the plants of harmful parasites . Everything has its opposite to strengthen its beauty in our eyes. A kind of Yin and Yang for which everything was created together with its opposite, without which it could not be understood?

The Kabbalist Leon did not like the solution that God did not exist (God avoids this for us and frees us!) because he had shown His Divine existence with his studies.

Then ?

Leon thought that God had resorted to a stratagem, a Demiurge, a kind of neutral mechanism between Man and God, *Probability*, that is, the Psi (Ψ) function that allowed God to make events happen, keeping Man's free will.

In other words, if things went wrong, it was their business (that is, of the living beings) and not God's fault, but it was the fault of the Demiurge.

That Demiurge was mathematics that mathematicians liked very much, because even if it wasn't good, at least it was fair and impartial.

But it was undeniable that there was also goodness and good feelings on Earth. The love of mothers of all kinds for their children and altruism and solidarity towards the

poor, the weak and the sick. Then math didn't explain all that was in the world. Rabbi Hillel and Jesus, each on his own had said that the synthesis of the Law was: ***love your neighbor as yourself.***

Leon then thought of another solution: **the Law**. What if God were the Law? After years of studying the Hebrew Bible, the Koran and the Gospels, his interpretation of God could be expressed with a single sentence:

"God is the Law, not the hand that causes or changes the future event. "

Quoting what God himself had told Moses:

"I am he who is (ie: I am existence)."

This last concept was the most beautiful of all: God was Existence. The Law of Existence.

But even this was not enough to describe the existence that was God. Finally Leon was inspired: if he added to Spinoza, Einstein, Galileo and Darwin, even Jesus, Rabbi Hillel, St. Francis and Gandhi he could say:

"God is the good mathematical law of existence that with the help of the Demiurge created and continues to create the World with love."

And that was the solution of Theodicy that did not offend anyone.

The history of Eternity

The Argentine writer Jorge Luis Borges is my favorite author, because he is fascinated by the paradoxes of physics that he regularly discusses with profound knowledge and incomparable expertise in his essays. A genius like him could have become an excellent theoretical physicist instead of a famous writer. What has been has been, in any case Borges could not remain insensitive to the problem of Time.

What is Time? Time has a profound meaning both in physics, as it enters all the equations that imply movement, and in Theology, since it has an enormous Theological significance, as it is closely linked to the Creation and the becoming of the World. This time Borges, giving proof of having understood the "Theory of relativity" and Cantor's mathematics very well, analyzes the paradox of Time starting from a quotation from Saint Augustine in Latin:

"Not in tempore sed cum tempore incepit creatio" (Creation begins not in time but with time).

This is proof that Saint Augustine agreed with both Maimonides, born 8 centuries after him, and the modern scientist Stephen Hawking, our contemporary and still living.

From this quotation it can be deduced that for Augustine, Maimonides and Hawking, Time began with the creation of the Universe. In particular, Augustine and Maimonides shared the opinion that the Universe had been created from nothing (*ex nihilo*) by a God (*Pure Spirit*) who lived outside of time and space.

For Hawking, the Big Bang (the creation of the Universe) was spontaneously created by itself starting from a quantum fluctuation of the void, (which however is different from nothing) that had given rise simultaneously to both Time and the Universe.

Borges, however, wonders: but if there was no time before creation, what was there before? Then he begins to illustrate some physical and metaphysical mysteries inherent to Time that must precede eternity. One of these deals with the direction in which Time flows. Normally it is thought that it flows from the past to the future, but the opposite direction established by the Spanish poet Miguel de Unamuno in this poem, appears equally logical:

"The night time river flows from its source, which is the eternal tomorrow ..."

And here too we must admit that it is very true that a river flows from its source and that its water of tomorrow has not yet passed today.

After discussing the positions of the Eleatic school, those of Plotinus and other medieval philosophers, Borges finally cites the words of the philosopher Schopenhauer that reveal another paradox:

"An infinite time has passed before my birth; what was "I" for all that time? From the metaphysical point of view I could answer "I" myself: I was "I"; who for all that time said "I" was nothing but "I" ... "

At this point Borges writes: *"I presume my readers will approve this explanation"*.

It is clear that to respond positively to this question we must first understand it, then agree. But we remain speechless because in order to answer we must first understand what the future holds.

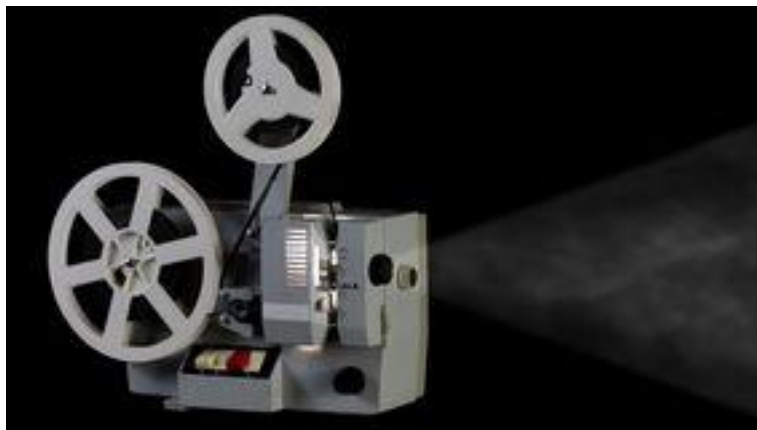
In the case of the river, if our observation point is above a bridge and we look towards the mouth, we see only the water that comes out from under the bridge and not the water that flows from the source. We can neither predict nor see what

will happen before the water gets under the bridge. Someone could pour a liquid that colors the water red and we would see it red only after it has passed. Because even if it is true that water flows from the source to the mouth, that is from the future to the past, the future remains unknown until it becomes present.

I have always thought that the arrow of time, to respect temporal symmetry, went from the past to the future. My father came into the world before me and there was a time when I wasn't there. God existed before Christ, and there was a time when Christ was not there. Time does not flow from the future to the past, because otherwise we could act on events, blocking them before they occur. For example, I can go into the future and kill Hitler's father, to prevent him from generating that monster of his son, or I can go to the source of the Miguel de Unamuno river, to divert the course or build a dam that stops the flow of the water.

But then, thinking it over, a doubt arose. What did I write in Scicli's Talmud, which I considered an important discovery, a few years ago? So I went to browse through my files and here's what I found:

"... we can imagine the position of God in relation to creation in the following way: the projector of a film remains immobile while the film moves through it. In a reel it is the film that is projected (the future) and in the second reel is the film already projected (the past) while the projector always remains stationary in the same place (the present). "



But then I realized that this was exactly the description of Miguel de Unamuno's River of Time: Time unfolded from the future to the past like the nocturnal river of the hours! If I stopped on the bank of the river, I could see the future water becoming present in front of me and then immediately become past water.

God, from his vantage point that was located in the projector, saw the future events that were transformed in the past, rolling around in the second coil, flowing before him. Before creating the creation, the whole past was rolled up into the coil that

contained the future and the coil of the past was empty, then gradually filled up, while the future turned into the present and the film rolled up turning in the past. The reel of the future, not yet unrolled, contained a past that had not yet become present and that no one knew, although there was no doubt that it was all contained there, inside that reel.

But the coil of the future was empty.

Then it is clear that time and events did not exist in the future before becoming present. And did God know the future? I doubt it, since not even God can know what had not yet occurred.

The situation was therefore like that of this empty hourglass that fills the past, passing from the present. That explained life.

But how about death? There is the doubt that to describe what happens in the great beyond it is enough to turn the hourglass....



The laws of thought

For the Boolean logic (from the mathematician George Boole 1815-1864) the laws of calculation refer to the various relationships that exist between the "classes" (collections of objects or members) expressed in the "propositions" that can be written as written or spoken language or as mathematical equations.

For example if x and y are classes, then a relation like $x = y$ means that the two classes have exactly the same members, even if the classes have been defined differently. Let me explain: propositions $x = \text{John is Ethel's brother}$ and $y = \text{Ethel is John's sister}$ you can write $x = y$, and they are equal, even if the classes that represent them are different.

If we take a simple equation like: $6 \times 1 = 2 \times 3$, where there is no doubt that the two members of the equality are equal, we see immediately that the right class includes the numbers 2 and 3 and the left one the numbers 6 and 1, and if it were not for the multiplication sign (and the principle of the "lever" discovered by Archimedes) they would be different and far from equal.

As the Kabbalist Leon has already explained on several occasions, the apparent equality:

$1 = 1$, is anything but true in an absolute sense, since the two 1s are one on the right and the other on the left of the sign $=$, which represents the fulcrum of the Archimedes balance. One scales plate can have a kilo of gold and the other a pound of lead, but the two scales remain balanced. If I remove the kilo of gold from a plate, I must also remove the kilo of lead from the other plate, so that the balance remains balanced. If I bring the 1 right to the left, I have to change it like this:

$1 - 1 = 0$, so that the equation is always valid, ie: $0 = 0$.

So according to Boole's logic, the two 1 belong to two different classes.

If we take two famous propositions: $x = \text{Jesus is God}$ and $y = \text{God is Jesus}$, we can mathematically write them: $x = y$, but we know that they are two different classes, although we can very well accept the equation (despite the doubt) ...

The grave problem instead arises with the Trinity. If we take the three propositions:

$x = \text{Jesus is God}$; $y = \text{God is Jesus}$; $z = \text{Holy Spirit is God}$, so if $x = y = z$, to respect the dogma of the Trinity we must introduce a mathematics based on classes of objects of infinite dimension, which can be added together without problems, for Cantor's mathematics. If this were not the case we would have this result:

$x + y + z = 3$, which is unacceptable and blasphemous ...

Instead if each of the classes is an infinite class consisting of infinite zeros:

$x = \text{infinite}$, $y = \text{infinite}$, $z = \text{infinity}$

For the theorem of the sum of the infinitives, three infinitives added together give an infinitive:

$x + y + z = 1$ which is the Unity of God

Note that this proposition of the mathematics of the infinitives is valid even if the infinitives to be added are four, thousand or infinite, because one cannot go beyond the infinite with the sum of the classes ...

The sum of infinite classes that contain infinite objects or members is of course the Substance of Spinoza, which is 1, besides being infinite ...

Negative probability

For years, Leon, the Kabbalist, had posed the problem of negative probability. According to his logic, which was considered absurd by many, in addition to the space-time characterizing the world of normal energy-matter where positive probability reigned, there must also be a space-time in which dark energy-matter occurred, where the negative probability reigned. No one had ever understood what energy and dark matter was, let alone what was a negative probability. His concept was simple, in its absurd clarity, and according to him it was perfectly clear. The theory of Leon, published on his blog, which very few read, was based on the concept that in a simple equation like:

$$1 = 1$$

the two 1, despite being the same, actually were one the opposite of the other, because they were one on the left and one on the right of the sign "=", which represented the fulcrum of the equation and therefore the "zero". Based on this discovery Leon had come to the conclusion that on the two sides of the physical reality that was divided in the past, present and future and where the "=" sign represented the present, the two probabilities of the past and the future were of opposite sign even though equal, since a probability was to the left and one to the right of the equality "=" which was the zero point of reality and one could then write this equation, known as the first Leon equation:

$$\text{probability (past) = probability (future)}$$

If you carried the probability of the right to the left, you had to change its sign like this:

$$\text{probability (past) - probability (future) = 0}$$

It was therefore evident that one probability was the opposite of the other and if the concept had been applied to life, this strange result would have been obtained. (clearly expressed by Leon in his essay: The Fulcrum and the Equation, related below).

The probability regulates the becoming and the mutations of events in our Universe, and is always a positive probability. It starts with probability zero = complete failure and ends up with probability 1 = complete success. But in the world beyond, what probability will there be over there? If the equation written above is valid it must be a probability opposite to the one that applies in the Universe. We will start from probability zero = success and we will end up with probability -1, that is complete failure. The sum of the two probabilities will therefore be the zero point, which is God, where all the probabilities are contained and all are possible. Will the "losers" on earth be winners in the hereafter? It really seems so.

It was clear to Leon and his few disciples that the world of probability where events occurred obeyed Leon's first equation, creating two complementary realities: a positive space-time and a negative space-time.

The world of positive space-time obeyed Einstein's equation:

$$E = mc^2$$

The negative space-time world obeyed Leon's second equation:

$$E = imt^2$$

Einstein's equation establishes the equivalence and the conversion factor between the energy and the mass of a physical system in a positive space-time. "E" indicates the energy contained or emitted by a body, "m" its mass and "c" the constant speed of light. Based on this equation, all normal matter is energy, including us who are made of photons. With this equation, Einstein has revealed the greatest of all mysteries: who are we? We are organized energy.

The second equation, which Leon had developed from the scientific readings he had made (probably without realizing it) was that of antigravity, which represented the equivalence and the conversion factor between the energy and the mass of a physical system in a negative space-time. "E" indicates the energy contained or emitted by a dark mass, "i" is the imaginary number $i = \sqrt{-1}$, "m" its mass (which traveling faster than light, instead of creating gravity creates expansion) and "t" is

the speed of tachyon, which must travel faster than light to exist. Based on this equation, all matter when moving at a speed higher than light creates depending on the case, either dark energy or dark matter. With this equation Leo had revealed the second greatest mystery of the Universe: what is dark energy? It was the energy that caused the expansion of the Universe and opposed gravity. It was the famous anti-gravity.

It was clear that there were "antigravity bubbles" around all the galaxies in the Universe, judging by the proven existence of enormous amounts of dark energy and dark mass that had been revealed by astronomers in recent years. There was even talk of more than 95% of the Universe being made up of dark energy (72%) and dark mass (23%). To be honest, there was antigravity wherever there was even gravity. It seemed that the two opposing forces coexisted in the Universe balancing in perfect harmony.

The discovery of the concept of antigravity had ancient roots. It could be said that it dated back to the very ancient concept of Eastern philosophy known as Yin and Yang, terms that in simplified Chinese indicate a generic pair of opposite and / or complementary elements, which constitute all reality. However, the mathematical discovery was due to a publication by Leon: Paradoxes of Time, which fortunately had never been disclosed in scientific journals, because as we shall see Leon had recently modified his equation. A similar theory had also been published by Charon in his book: Théorie de la Relativité complexe, and explained in the book: Death, here is your defeat, of the same Charon, which Leon was reading. Maybe it was just Charon who discovered antigravity without realizing it? However, we owed to Leon the equation:

$$E = imt^2$$

And it was Leon, who after years of study had finally expressed the concept of antigravity in the elegant mathematical terms starting from the theory of Tachyons. Tachyons are particles of negative mass due to their complex mass which includes the terms i and m where i is an imaginary number equal to $\sqrt{-1}$ and m is the mass. This imaginary number, however, elides with the Gamma correction expected by Einstein because the Tachyons travel faster than light. That imaginary number has nothing to do with Tachyon physics. What does negative mass mean? What are tachyons really? They are possibly quanta of "expansion", more similar to ultrasound than to particles. They are exactly the opposite of the matter, although not antimatter. Most likely they are formed due to explosions occurring in black holes, in the absence of time. They also occur when small spontaneous explosions occur, caused by quantum fluctuations, outside the kinetic universes, where time is

at rest or almost at a standstill. Not only do they travel faster than light up to infinite speed, but they cannot travel below the speed of light, otherwise they would require infinite energy to overcome the wall of light. Instead, they can easily travel at infinite speed if their energy becomes zero and their mass is therefore zero, due to the principle of equivalence between energy and mass expressed by the famous Einstein equation: $E = mc^2$

The formula that Leon originally derived was: $E = imc^2$

However, this formula had been modified by him, because it was more natural to put in the formula t (the speed of the tachyon) instead of c (the speed of the photon) for reasons of mathematical logic. In fact, while c was a constant equivalent to 300,000 Km / sec, t was a variable that varied according to the case between a minimum that was c and a maximum that was ∞ (ie the infinite). This fact had significant mathematical advantages.

First of all Leon had shown that if the tachyon had a mass equal to zero and slowed its speed up to that of light, it became a photon without having to overcome the light barrier. Thus tachyon-photon transformation was possible only in special circumstances. For example, when a person died and his photons died passing off into the beyond.

Leon had also shown mathematically that if the tachyon had a mass other than zero, when it slowed down its speed it created dark energy / mass in quantities varying according to the speed. The more it slowed as he approached the speed of light, the more mass and dark energy it generated. (See the essay: Paradoxes of Time) Why was it dark energy and dark mass? Probably because they were generated by tachyons that traveled beyond the speed of light, and therefore in the dark, or because they were gamma rays that vibrated at a frequency much greater than that of visible light.

To travel at infinite speed the tachyon had to have zero mass and when the term in the denominator of the Gamma correction became infinite, because the particle was traveling at infinite speed, the equation became: $E = mt^2 / \infty$.

Since in the numerator the mass was 0 and had to be multiplied by ∞ , (being the infinite speed t^2 of the tachyons always equal to ∞ even when squared) at the numerator the result was 1.

That 1, as Leo had shown in the essay: The mathematics of God resulted from the product $0 \times \infty = 1$ that divided by ∞ , it gave zero, because every number divided by

infinity becomes zero, and therefore the energy of the tachyon became zero. So, as expected, if the tachyon was traveling at infinite speed, its energy had to be:

$$E = 1 / \infty, \text{ i.e. } 0.$$

The Tachyon rifle

All this tedious mathematical premise is necessary to explain in a scientific context the basis of the operation of the tachyon rifle that Leon had built in India with the help of Brahmagupta Junior (See Leon's story: The Adventures of the Kabbalist Leon). The principle was very simple: if an explosion was created in a Laser beam where time was at a standstill, tachyons were created that could be produced at variable speeds, according to need. By varying the density of the medium in which the laser beam traveled, the speed of the tachyons formed by the explosion could be varied at will. If the laser beam traveled in the void, in the absence of matter, causing an explosion inside it created tachyons that traveled at infinite speed.

It was therefore possible with a stratagem to vary the speed of tachyons with mass at will, provided that they did not fall below the speed of light. In this way the slowed tachyons created both dark energy and dark mass. Above all a blue electromagnetic radiation was generated in the medium crossed by the tachyons, the so-called Cherenkov radiation.

To conclude, there were all the premises to build a deadly weapon that fired energy and dark mass and an abundant beam of electromagnetic Cherenkov radiation. After the shot a beam of tachyon light was formed that could only be seen after it had passed (because it traveled faster than light). However, it was necessary to point out that that ray did not cause damage in the real world, where the positive probability reigned, but it had catastrophic effects on the matter of the "antigravity bubbles" because it transformed the matter of bubbles into antimatter, causing its immediate destruction. As it is known, antimatter explodes in contact with matter, forming photons of light.

Leon had guessed the phenomenon with a simple equation: $E = 1 / \infty$.

The substance of the devils

Leon was not convinced of the existence of the Devil (and in general of the various devils named in the sacred scriptures), but from the point of view of mathematical

logic and Kabbalah, his existence was logical, even if difficult to prove. Bertrand Russell, whom Leon admired for his intelligence, had told the following story that in the book Anilao Leon had the old Jew Nahum quote in its entirety: "Nahum smiled and said:" *I see that you have progressed a lot in the study and all that you have said is true, except for one thing: God deals with the world but cannot intervene directly because he lives outside of time and his probability is only certainty. He can only do what is certain, not what is probable unlike the Devil, the king of the kingdom of darkness and the absolute denial of being.* "Then Nahum went to look through his books and returned with a book of essays written by Bertrand Russell. "*Here is the explanation. God is probability 1, that is, certainty. The probability of Satan must then be the opposite of that of God, that is, -1, the opposite of certainty, because he is the opposite of existence, the embodiment of non-existence. But here is written what Bertrand Russell thinks, in his story: The nightmare of the metaphysicist. Russell says that a friend of his, the philosopher Andrei Blumblowski, had a nightmare in which he dreamed the Devil. Finding himself in front of Satan in his dream, Blumblowski realized that the Prince of Darkness and the Spirit of denial possessed a negative body in addition to a negative mind. In other words, his body consisted of an absolute emptiness, devoid not only of particles of matter, but also of light. The empty region of his body was absolutely black, not just black, but infinitely black. It represented an absolute void, even though that special nothingness was a black hole that had the shape of the Devil, complete with horns and tail.* "

"Beautiful description of God and the Devil, but I don't understand where you want to go from that story." Replied Leon "*I want to get to tell you that God is the Being, and in the realm of being everything is possible. The Devil does not exist, because he is not. But don't doubt. Even if God cannot intervene personally, he can always send his messenger angels to make his will be done.*"

The solution was probably to understand what the Devil was made of. Leon knew that the word Satan derived from the Hebrew Sàtàn, which meant the adversary, the opposite and it was abundantly shown that the scriptures implied that Satan represented the Evil that was inextricably associated with the Good, because the two concepts were mutually exclusive and without one one could not define the other. After long studies, Leon had come to the conclusion that the Devil, together with all the devils, contrary to what Nahum claimed, existed and consisted of the same substance that formed the Being, that is God, but this substance was immersed in a field of negative probability, which started from 0 to finish at the most at - 1. Devils were the opposite of normal probability and their success was the opposite of good: the devils won when everything was wrong and their immaterial body was made up from "antigravity bubbles" where the negative probability reigned.

The equation could be written like this:

positive probability of God = negative probability of the Devil

And if the probability of the Devil was brought into contact with that of God, this happened: $+1 - 1 = 0$

The zero was the sum of all possible probabilities (which was God), in which zero everything is equalized and everything becomes possible.

Leon had the whole theory in his hands to figure out who the opponent was, i.e. Satan and who his helpers were, in order to build the lethal weapon that could destroy them. This weapon had to fire the tachyons at infinite speed so as to transform the substance of the devils into antimatter and disintegrate them.

Moral of the story

Eventually Leon ended his story by saying:

"Members of the Kabbalist Academy, if you encounter a Devil (or you suspect he is a Devil), build yourself a tachyon rifle and shoot him. If he is a human being, he will remain unharmed, if instead he is a Devil, his substance will collapse and in contact with the tachyons his negative probability field -1 will be added to $+1$ (the positive probability field of reality) and therefore he will become 0 , because:

$+1 - 1 = 0$ "

Is zero nothing or is it something? Explanation of the Kabbalist.

In classical mathematics the number zero has two fundamental properties: when it is added to a number or subtracted from a number, it leaves that number unchanged. Example: $25 - 0 = 25$ and $25 + 0 = 25$, and when multiplied by a number, remains equal to itself. Example: $0 \times 25 = 0$.

Zero is a number that indicates an absence (there was none) or the result of two equal numbers that subtract each other: $25 - 25 = 0$.

The number 0 is a number that when is raised to any power, always remains equal to itself and does not change if you take it with the $+$ sign or with the $-$ sign. Also the square root of $0 = 0$, thankfully!

Another key feature is that there is no number between two consecutive zeroes. When placed consecutively on a straight line the distance between them is zero. Two consecutive zeroes leave no gaps.

In front of me I have the book: Mathematics for the Million, in which on page 89 the author Lancelot Hogben says:

the operation 0 divided by 0, that is $0/0$ is not a nominable entity, and many mathematics books write that

$0/0 = 0$.

Fortunately in physics it is not so because $0/0 = 1$, since in physics “nothing” doesn’t exist and zero is not nothing but something. If this were not the case, the Special Theory of Relativity would not be valid because the zero-mass of the photon would have no energy and life on Earth would become extinct. But what is worse, the Substance of God, foreseen by Spinoza and studied by Kabbalists with Gematria, would be equivalent to Nothing and the study of Divinity cannot be based on nothing. For the simple fact that God is part of physics, because He exists. He is the One who is, and his kingdom is Existence.

The Jewish God (who was also the God of Spinoza) is a hidden but real divinity, an infinite unknown Unity that hides behind a red-hot bush, or manifests itself as a soft sound, or appears in a dream to the prophets. The Jewish God is a Voice that speaks to each Jew individually.

He is a hidden but existing divinity, because His kingdom is reality. He is a reality made of Pure Spirit.

But Spinoza's explanation was not enough. To create the voice that speaks to the Jews, God must also have avmaterial Substance incorporeal but existing, because it occupied all infinite space, a continuous Substance that left no gaps, an undifferentiated Substance, but different from nothing, because it existed.

His God had to be at the same time an infinite extension and a thought that filled all that exists. Therefore it could not be constituted by mathematical zeros, but by real physical zeros, since it existed.

Here is the explanation of the Kabbalist Leon on the problem of zero.

Photon's energy

For years, reading the books that explained the Theory of Relativity, I asked myself: how does the zero-mass photon have an energy different from zero?

If I put the mass of the photon in the famous Einstein equation: $m = 0$, since each number multiplied by 0 equals zero, E (the energy) of the equation becomes 0, which gives me great psychological problems and long sleepless nights, because I'm used to thinking that the photon comes from the Sun and has a nice dose of renewable energy, equal to the square of the speed of light.

Above all Einstein has convinced me that we are all made of energy, that if you turn it around and around is nothing but a lot of photons connected together to form matter.

Let's analyze the problem step by step.

Let's start with the Einstein equation:

$$E = mc^2$$

This is the equation that establishes the equivalence and the conversion factor between the energy and the mass of a physical system. "E" indicates the energy contained or emitted by a body, "m" its mass and "c" the constant speed of light. Based on this equation, all matter is energy, including us. We are made of photons.

If this equation is valid and if I replace m with 0 (the mass of the photon) I get this result:

$$E = 0 \text{ because } E = 0 c^2$$

I get the energetic nothing that cannot exist.

Here is the illumination: "The Relativity formula must also include the gamma correction for the effects of velocity on bodies with mass." Otherwise the whole scaffolding built by Einstein collapses.

Here is the formula, which many of us ignore, that Einstein's genius and clever guy had proposed to correct the mass of bodies according to the speed at which they travel. Why do we ignore it? Because we are afraid of the square roots that remind us of our teeth and we fear squared exponents that denote the acceleration of the

rotating drill. We are terrestrial bipeds and travel slowly, without accelerating and we don't like dentists. (Although mine is a saint).

But here is the formula with the gamma correction:

$$E = \frac{mc^2}{\sqrt{1 - \frac{v^2}{c^2}}}$$

The formula written above includes a term in the denominator which is called gamma correction and should actually be written like this:

$$E = m \cdot \gamma \cdot c^2$$

And since gamma squared is:

$$\gamma^2 = \frac{1}{\left(1 - \frac{v^2}{c^2}\right)}$$

because of the Pythagorean theorem (gamma is a long story to explain but the squares are all Pythagoras' fault and trust me that after a bestial effort, I managed to derive it too), we must now take the square root of gamma and so we have:

$$E = \gamma mc^2 = \frac{1}{\sqrt{1 - \frac{v^2}{c^2}}} mc^2 = \text{?}$$

The result is a big question mark (?). This big question is soon solved. The result varies according to the speed of the movement and the size of the mass under examination. Now let's see the details of this correction.

The first thing to analyze is what happens if the body is still. The speed v under the square root becomes 0 and the ratio between the speed of the body and that of light becomes $v / c = 0$ because a zero divided by any number always gives zero. For this reason the denominator remains square root of 1 which is 1 and the gamma correction becomes $1/1 = 1$ multiplied by mc^2 remains: $E = mc^2$ meaning that the body does not move.

If instead the mass travels at the speed of light, the ratio $v / c = 1$ because $v = c$, and the whole term in the denominator becomes the square root of $1 - 1 = 0$ and therefore the gamma correction of the mass becomes $m/0$ which divided by zero results in infinite, (as we have seen studying the Brahmagupta equations) so it would take an infinite energy to move that mass at the speed of light. This of course is impossible. That's why our photon friend (of which we are made) must have zero mass. In that case the zero mass divided by zero becomes the famous

(unacceptable) equation: $0/0 = 1$, exactly like $1/1 = 1$ and $2/2 = 1$ etc ... because every number divided by itself must be equal to 1. **And zero is a number, let's stick it on our heads!** In the case of the photon the equation becomes:

$$E = c^2$$

and the photon must travel at the same speed as light to exist. And the Substance of Spinoza is made of photons, to be precise it is made of the resting mass of the photon, which is a zero endowed with existence, the "logon", described in the Talmud of Scicli.

The gamma correction corrects all the problems, if only one accepts a simple concept of mathematical logic that I had already proposed for some time in Scicli's Talmud (with the introduction of the "logon") and that many mathematicians are reluctant to accept, that is, that a zero divided by itself results in unity, that is:

$$0/0 = 1$$

For many mathematicians the division by zero gives an indeterminate result, but they are not people who have read the Kabbalah or the Talmud. They are atheists who have not understood who God really is.

For those of you who, despite everything, did not want to believe it, I repeat here the demonstration of this fact, which seems logical to me.

Demonstration

We have seen that 0 is the accumulation point of the $1/n$ series for n tending to infinity.

That is:

Lim of $1/n$ for n tending to infinity = 0 so we can write

$$1/\infty = 0$$

And its mutual

$$1/0 = \infty$$

These are the equations of Brahmagupta.

We also said (in Scicli's Talmud) that mathematical logic implies that $0/0 = 1$ and therefore we can give to 0 the value $1 / \infty$ and then write:

$$1 / \infty \text{ divided by } 1 / \infty = 1$$

and since the two infinite cancel each other we will have $1 = 1$ which is the proof that $0/0 = 1$

Q.E.D.

Now I feel better and I can sleep peacefully tonight. And you, dear friends of the Kabbalist Academy, if you have problems with insomnia, drink a grappa before bed.

The paradox of Theseus' ship

The paradox expresses the metaphysical question of the actual persistence of the original identity, for an entity whose parts change over time; in other words, if a single whole really remains itself (or not) after that, over time, all its component parts have changed (with others equal or similar). It is said that the wooden ship on which the mythical Greek hero Theseus traveled was preserved intact over the years, replacing the parts that gradually deteriorated. Then came a time when all the parts originally used to build it had been replaced, although the ship itself retained exactly its original form. Thinking about this situation (the ship has been completely replaced, but at the same time the ship has remained the ship of Theseus), the question that can be asked is: is Theseus's ship preserved or not? Or: is the entity (the ship), modified in substance but without variations in form, still the same entity? Or is it just like itself?

After so many years of life, was Leon the same or was he another person?

This is where you had to start: Theseus's ship.

The Kabbalist Leon had discovered that while he slept soundly, his "genetic program" inherited from his ancestors, including Cain, Noah, Abraham, Isaac and Genghis Khan, not to mention Caligula and Attila, was at work replacing every damaged cell of his body. This morning he suddenly woke up with the intention of catching the white blood cells and their field aides, who worked hard to rebuild him. In fact, he had surprised them: they were all intent on working like mad to reconstruct the ligaments in his knees, which were shabby. They worked so hard

that the nerve endings hurt him. Some of them were also replacing the right shoulder, the most battered one, the one that Leon used on a sailboat to roll the "winch", which was very hard. His brain had already been replaced years ago little by little, when he became an agricultural laborer after being an oil company manager. Now he reasoned like a peasant: he sat on the stone bench together with Gnà the cowherd and both of them with their mouths always distorted in a grimace of disgust, they discussed the current Government and the future one. It was clear that piece by piece, in addition to the spare parts that had replaced the faulty body parts, Leon was no longer Himself. But who was that He, what Leon thought he had been? Had he ever existed? If even He didn't know, who knew? And to quote the famous saying of Rabbi Hillel, Leon wondered:

"if it's not me for me, who is for me? "(The Kabbalist)

Other evidence of the existence of God according to the Evangelist

Today, finally, shaking off my proverbial laziness, I sprayed the palms with poison to fight the red weevil, then I watered the garden plants to fight the drought. The whole life of an agricultural laborer is a struggle against the forces of evil. So I sat in an armchair and listened to the Jewish prayer, sung by Barbara Streisand: Avinu Malkheinu, where God's help and his mercy are asked.

While I was listening, the Evangelist arrives and parks at the end of the access avenue.

I beckon him to come in and when he sits down I ask him point-blank the question: "Why does God allow evil on Earth? He could lift a finger, and block the earthquake in Mexico, saving thousands of lives. "

And he replied: "God is at home, and at home he does what he wants. Who are you to ask God why he does what he does? I don't come to your house to lay down the law, you decide what to do ... "

Not having answers to so much wisdom, I said to the Evangelist: I apologize, but now I go for a walk to the beach, to fight laziness ... All my life is a struggle against the forces of evil!

Below the sphere represents the Law of Gravity, against which we have to fight continuously....

(the Kabbalist)



Divine justice

While I am recovering from an attack of gout (not deserved) today the Evangelist comes to visit me.

Seeing me limp he asks me: "How's your foot? "

"Bad, how should it go? I have the disease of the Kings who drink too much wine. But little by little, perhaps the foot starts going again ... "

Then I dig out the usual ancient question of Job: "Why does punishment affect the Just, while so many Marauders prosper and are rewarded? "

For a while we talk about Divine Justice and I, citing the Jewish mentality that says the Devil does not exist, I tell him that to preserve the unity of Adonai, according to the Jews the Devil does not exist. Manichea duality is a human invention. Satan is not in the Old Testament. Then I conclude: "If it is true ... then there is only one culprit. Guess who ? "

He burst into laughter. "Why he does not exist? Bullshit! The Devil is everywhere, he is the antagonist, he hides everywhere. The fault is not of God, because the sun rises on the rightful and on the wicked, said Jesus. But nobody escapes from the divine justice. That's God, who can tell Him anything, who can scare Him? Old President Bush, with all his power, is in a wheelchair. No one is saved from divine justice. "

At this point I tried to get back to boarding with the Substance: "Substance directs operations with Probability which is immanent in space-time. We are all surrounded by a quantum probability sphere that directs the Future. My gout punished me and I keep it ... that's all. "

At this point the Evangelist begins to scream: "What Substance? That is Spirit, pure Spirit. It is He who commands! "Then quoting Daniel: 2, 21-22, he continues:" To

him belong wisdom and strength. He changes times and seasons; lay down the kings and establish them, give wisdom to the wise, and science to those who have understanding. He reveals the deep and occult things; He knows what is in darkness and the light dwelleth in him! "

And then I reply: "Then is His fault? "

"Of course, who can tell Him anything. He is God! "

The Devil according to the Apocalypse

While I was preparing the black olives in salt, here comes the Evangelist in the courtyard. I signal him to come in and tell him: "Sit down and I'll explain what I'm doing. You see, the olives must be pierced and put in salt, to eliminate the bitterness, that is their negativity. That's what God does when He eliminates the evil, He adds the Devil to His Substance with the equation: $1 - 1 = 0$. Understood? "

Then the Evangelist says: "The explanation is in the Apocalypse .." and runs to take the Bible. "Here is what is written in chapter 20 ...:" *Then I saw an angel coming down from heaven and he had the key to the abyss and a great chain in his hand. And he took the Dragon, the Ancient Serpent, which is the Devil and Satan and he bound him for a thousand years, then threw him into the abyss that he closed and sealed over him, so that he would no longer seduce the nations until they were a thousand years old, after which he will have to be released for a short time ... "*

And I say: "But what are 1000 years compared to eternity ?... then the Devil goes out and starts again, like the criminals who come out of jail ... and they give them a prize ..."

And he replies: "No, then God annihilates him forever, that's what is written: Then the Devil who seduced them (the Nations), will be thrown into the lake of fire and brimstone, where are the Beast and the False Prophet and they will be tormented day and night for ever and ever... John said so, there is no mistake ... "

And I say, "Awsom! Let's hope that what John says is true!"

(the Kabbalist)

What does "being" mean?

In addition to the philosopher Jean Paul Sartre, author of the famous book: *The being and the nothing*, the problem of the meaning of "Being" has engaged the minds of men since antiquity.

Greek, Israeli, Indian and Chinese philosophers and religious people and many others have ventured into the task of answering the question: why is there something instead of nothing?

This is the analysis of the problem, according to the Kabbalist Leon.

“For us modern Mediterranean people there are at least three important philosophical schools of thought, but it is only modern science that has given the answer to that question.”

Existentialism

According to the authoritative writer Sarah Bakewell, the philosopher Martin Heidegger, precursor of existentialism, wrote in his book *Being and Time*, published in 1927: "In the Sophist, Plato says: Obviously you have realized the meaning of the expression "to be ". However we, who thought we understood it, have now become perplexed ... I say: the sky "is" blue or: I "am" happy, as if that little word in the middle of the sentence had no interest. But when I stop to think, I realize that it represents a fundamental and mysterious question. What can it mean to say that something "is"?"

In his essay: *The genesis told by the Kabbalist Leon*, he writes: "In Principle there was only Being, because non-being was not. And so far we are all in agreement, even if Jean Paul Sartre observes, somewhat verbose, that the Being and the Nothing interpenetrate, because everyone depends on the other. To exist? To verify? No, to be defined ... "

The Bible

The Bible would solve the mystery if well interpreted, because God himself answering Moses' question: who are you? answers: *I am the one who is ...*

Revealing that He is nothing less than the Being, that is the existence.

But that very simple phrase of God was misinterpreted by the Rabbis and the Prophets, because for centuries God was placed in the top of Heaven, instead of on

Earth together with us to form the essence of all that "exists". And he had never said where he was!

Pantheism

For Spinoza the solution is clear: "Deus sive Natura" is all that exists, nothing more, nothing less. There is only the Substance of God which is at the same time an infinite extension and infinite thought, therefore it includes the whole "Being". And we are part of it because we exist and we think. Thus the words of God must be interpreted to solve the riddle.

Why is there something instead of nothing?

All three currents of thought share the same question to which nobody has been able to give a definitive answer. A partial answer may have been given by Spinoza: there is only what in order to exist only needs itself: the Substance, that is God. But only modern science has given the definitive answer.

Science

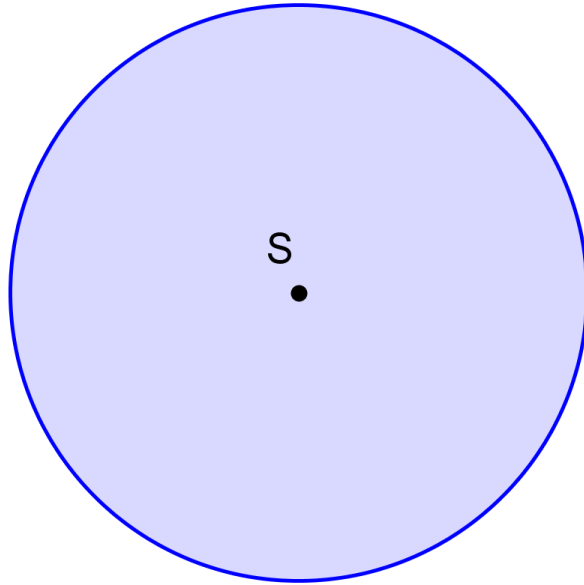
For modern science, nothing doesn't exist, precisely because it has no existence, so even the void is teeming with life. Not only doesn't nothing exist, it is impossible. So all of us, including God, must share existence.

Don't blame God, because even He, who is no longer only in Heaven, but everywhere, is serving the same condemnation to exist with us!

(the Kabbalist)

Pantheism

Spinoza's vision leads to the identification of the Universe and all that surrounds it with God, understood as a unity of all opposites and a chessboard on which the future of the world is played. The substance of God has existed forever and will exist forever and is all in all. (The Kabbalist)



The awesome sphere of Pascal

The manifesto of Pantheism

Explanation of the Kabbalist Leon :

There are many aspects of the Pantheist mentality that resemble the manifesto written on the walls of Paris by the students during the famous 1968 revolution:

- It is forbidden to prohibit
- Neither God nor Master
- A man is not "intelligent"; he is free or it is not
- Be realistic: ask for the impossible

As Jean Paul Sartre commented on that revolution:

"... the demonstrators on the barricades of 1968 asked for nothing and everything, that is, they asked for freedom. "(From the book by Sarah Bakewell: At the Existentialist Café)

Since the Pantheists have replaced the God of the Bible with the Deus-sive-Nature of Spinoza which imposes neither dogmas nor commandments, what is the manifesto that the Pantheists should write on the walls?

Here's what they should write:

- We are free, so we do not accept divine prohibitions
- Our God is Nature of which we ourselves are a part
- For us, everything is possible with respect for Nature and ourselves
- Our God is infinite extension and infinite thought, so all that can be thought of, we can do it only if it is possible.

Legitimate questions

How can one love or just admire the Pantheistic God? How can the **One** be praised and asked for help, even if that **One** is All in all? The answer to that question is: "You cannot love a number 1, but you can love the Heavenly Voice that continually speaks to you ..."

Everything is reduced according to the Cabalist Leon to a voice that gives advice like those recounted by Umberto Eco in his latest book. Here is the story:

A final good blow of Umberto Eco's genius is to write, before pulling out, a nice book that is fun and easy to understand: *Number Zero* ... Since I am the Zero specialist and the inventor of the "logon", the space-time atom of zero size and zero mass, so I understood very well the book. Umberto Eco, as the last lesson of someone who has been a great professor of life, warns us against the Heavenly Voices, with this little story:

"A cowboy riding on the prairie hears a voice from the sky that requires him to go to Abilene. The cowboy obeys. Then once in Abilene is told to enter the saloon, then to bet all his money on the roulette on the number 5 and, seduced by the heavenly voice the cowboy obeys, the 18 comes out and the voice whispers: "Too bad, we have lost!"

Also to Leon that same Celestial Voice had suggested: "Turn your Thrift Plan (savings plan) from dollars (which are liquid) to shares (which are solid), because things are going well and the Future is rosy. "

But that had been a solemn bunch of shit. After Leon had bought them, the shares had fallen immediately, indeed they had collapsed, the technology bubble had burst and his money had been halved.

But then, if one could not even believe in that Voice, what was one to believe?

Leon was wrong. Spinoza's God was a hidden but real Divinity, an infinite unknown Unity that hid in front of Moses behind a red-hot bush, or manifested itself as a soft sound to the prophet Elijah on the Sinai, or appeared in a dream to the prophets. Spinoza's God was a Voice that spoke to each Man, individually, but with a true voice, made of real sounds.

He was a hidden but existing divinity, because His kingdom was reality. Was it a reality apparently made of Pure Spirit? No. It was made of real sounds, of acoustic waves, because that God was Nature. So?

We must believe in the voice of Nature. Believe in the voice of the wind in the trees, to the sound of the waves of the sea and listen to the voice of Creatures, like blackbirds and crows and learn their language.

Those voices never gave “assholes” advice, they never advised investing in the stock market or in the roulette, because they didn't come from the Highness of God, but from below, from ground level.



Blackbirds and broad beans

I "speak" the tongue of the blackbirds that have lived on the old pine on the eastern side of the house for years. More precisely, "I think I speak," because the blackbirds are too clever to think that I'm really a Sicilian blackbird like them. They consider me an unfaithful blackbird, an infamous, a quaquaraquà, because I whistle with a Romagnolo accent and therefore I don't belong to the honored society of Sicilian blackbirds. I whistle like this: "Fy Fyu Fy-Fiiii !!!" so the Fiiii! final is at least one octave higher than Fy Fyu Fy.

For years we exchanged ideas and tolerated each other, even though my blackbirds never believed what I was saying. This until yesterday, because from today things have changed.

The blackbird (*Turdus merula* LINNAEUS, 1758) is a bird of the Turdi family, but it is certainly also a cadet branch of the noble Corvidi family. The size of the male blackbird is 25 centimeters, so a prostitute friend of mine from Romagna, would have exclaimed: "*Oscia* what kind of *usel* (cock) !!!" "With undisguised admiration ..."

Good, but you will ask yourself: "Why all this ornithological explanation? "

Well, I just wanted to warn you: be careful, because the blackbirds are not only very intelligent, but they also have an X-ray view. In other words they see what is under the ground, up to a depth of 10 centimeters. Here are the proofs.

On Halloween, October 31st, with a *bestial* effort of my poor knees I had planted the beans under the old scaffolding of reeds that I had used for my tomatoes. A few days before to my farmer I had asked to hoe 5 or 6 rows under the canes, without removing them, because I planned to plant the beans, so as to fertilize the soil in order to plant the tomatoes in April. My farmer warned me: "Plant the beans with holes at least ten centimeters deep, two three beans per hole, and distance the holes 30 centimeters from each other." But he had forgotten to explain why. Unfortunately I discovered why.

While planting the beans in each hole, my blackbirds looked at me from the top of the pine tree, saying: "Fy Fyu Fy-Fiiii !!" and I replied with my infidel and infamous accent, saying: "Fy Fyu Fy-Fiiii !! "

Two weeks go by and I, who daily scanned the situation from afar, to see if the beans had emerged after the beautiful rain that had fallen in the past few days, I decide to go and see. No beans in sight. To my surprise I noticed that each of my holes had been dug and cleaned with surgical precision. Here and there there were traces of broad bean husks, left by the blackbirds, which considered the peel indigestible. At this point, depressed, I had to drink a grapnel to give me courage and I started thinking. Who could it have been? Surely the blackbirds had memorized the geometry of my plantation of beans or, more likely, they saw under the ground with X-ray eyes. The holes had been dug and opened with geometric precision, so there was no doubt: the blackbirds saw with eyes equipped with X rays. After recovering from the dismay, having drank a second grapnel, I decided to replant a kilo of fava beans, this time without geometry, but following a chaotic pattern with the hoe, and above all without bending my knees. Then I went to the garage and got some windbreak nets, which I snickered on the reeds, covering the beans under an impenetrable barrier for the blackbirds.

Then with malice I said to the blackbirds: "Fy Fyu Fy-Fiiii !!" which in my opinion was an insult and meant: "With a brain of a gram do you plan to get away with an old farmer expert in Kabbalah? I hope you get diarrhea and indigestion for all the beans you ate! "

From the tree the blackbirds did not respond.



The Blackbirds are related to the Crows and are holy birds.

Today, while I was inspecting the anti-blackbird nets, the Evangelist arrives and I signal him to enter and park in the hague in front of the house. Then I tell him the story of the blackbirds, who being cousins of the Crows, are birds of ill omen. But the Evangelist immediately tells me: "No, no, it is the Crows that fed Elijah. They are sacred birds, blessed by the Eternal Father." Then he ran to take the Bible and read:

I Kings, 17, 2-4

The Lord speaks to Elijah: Get out of here, turn east and hide under the Karith stream which is east of the Jordan. Now you will drink at the stream and I have commanded the crows to feed you.

Then the Bible continues to tell in paragraph 6:

The Crows brought him bread and meat in the morning and bread and meat in the evening and he drank at the stream.

Faced with this revealed truth, especially because Elijah is my favorite Prophet (because he is the only one who saw God pass by on the Sinai), I changed my mind about the Crows and the Blackbirds. For me they can eat me all the beans they want ... After all they too are part of the Substance of God!

(The Kabbalist)

Praise of the Bavosa



The “bavosa” is our ancestor. (From a tale of Kabbalist Leon)

Who doesn't know the Mediterranean slob-fish (bavosa)? That fish with protruding eyes that emerges from the water without fear, walking on the front fins, because it is almost an amphibian and is not afraid of the air.

The Bavosa is widespread in almost all the seas of the world with the exception of the polar ones, and is particularly present in the tropical and subtropical ones. It is encountered mainly in stretches of rocky coast, on hard surfaces, in coral reefs and in mangrove forests; usually it lives at a maximum depth of 6-7 meters. Some species can come out of the water and rest on the rocks that stay emerged for some time. In the first meter of water we can in fact find as many as ten species of them, but features of this narrow mid-littoral belt are the Adriatic bavosa, the slobbering cockerel, the slobbering capon and the peacock bavosa. During high tide these species feed mainly on invertebrates (they are fond of cirrus of barnacles) and also consume turf, that is the layer of thickness between 2 and 10 mm that covers the rocks, composed mainly of bacteria and algae.

Before I was prevented from approaching the Isle of Leeks (Isola dei Porri), for environmental reasons, I spent years studying the fish of that island which is a mile from the coast of Eastern Sicily. Why ? Because with their strange faces, their wide mouths, their bulging and curious eyes, they are certainly our ancestors.

If life on the planet has developed in the sea, the drooling fish is the first fish that has felt the need to leave the sea to explore the emerged earth. Bavasas are adventurous like us, they love to explore.

Who said that ? I say that because I know them well. Here is my theory.

There is no doubt that life developed in the seas and oceans and that the first fish that ventured out of the water, 350 million years ago, did not do so out of pure chance. Amphibious creatures, in the course of evolution, have tried to get out of the oceans at least 30 times, as shown by a study that tells something more about the circumstances in which these animals developed their marked adaptive abilities. And there is no animal more suitable for living anywhere, than the descendant of the slobber: the man (Homo Sapiens-Sapiens).

When Homo Sapiens-Sapiens comes out of the water, it rests on the rocks with its arms and drools, just like a slobber. And if this were not enough, just think that every man has two parents, each of whom has two parents who in turn have two parents each and four grandparents, ad infinitum. And all the males drool in front of a nice pizza or when they come out of the sea. And the Cuban singer Secundo sang: "*Se me salen las bavitas ...*" when he thought of his beloved ...

Not enough to prove the origin of the human species from the slobber? Look at the photo of a bavosa on the rocks above and you will be convinced.



The library of Pozzallo

I was reading three books at the same time (as is my habit, because time is running out and no time must be lost) of different topics, all interesting for a Kabbalist. Here are the titles: Peter Wohlleben's *Secret Tree Life*, Vito Mancuso's: *Need for Thinking*, and *Are We the Opposite of God?* of my friend Antonio Thellung.

Well, the Vegans Fabio and Lella (my friends and neighbors writers) come to see me and, discussing with them, I learn that in Pozzallo, in the ancient Palace of the Tedeschi Marquises, they have recently opened a new library, stocked with modern books of all kinds. So I immediately rushed to see what was there to read in the new library and I chose two successful "crime" books by Gianrico Carofiglio, called "best sellers" on the Web. Having already read his first book: *The three of the morning*, which I liked a lot, so I also wanted to read his "thrillers" to try to understand the secret of his literary success. Unfortunately I was disappointed. The books are read in a moment and are well written, but in one the killer is already revealed by the

first page, even before he completes the crime and in the second, it is clear already on page ten that the girl e murderer is the old dirty money lender. I took it badly ! To make up for it, I ran to the library to choose two books by the very famous Fabio Volo, always present in all the sauces in Fabio Fazio's TV programs. "I want to see why he's so famous", I thought ...

I started reading the first book, which made him famous, a 2001 best seller, entitled: I go out for a walk. The book describes the dilemma of a young man who does not know who to fuck. Already starting from the chapter: Yogurt Relations, page 30, the book seems to be written by a pizza maker, rather than a famous DJ, and describes his erotic adventures with the addition of mozzarella and oregano, with profound philosophical considerations such as: "She would be a dangerous lover: she left her hair everywhere. Everywhere ! One morning, after we had made love all night, I went to the bathroom and saw that there was a hair on the tip of my cock, but then in removing it I realized that one of her hair had coiled around the glans . How much I liked Alessia! "I spare you the descriptions of other loves, in the next 10 pages where he describes other adventures with a girl called Lucia, suffice it to say that she:" She always wanted to take it in her mouth: in the car, in the cinema, in the restaurant bathrooms! "Definitely interesting stuff, but not very useful for understanding the secrets of the God of Spinoza, of the Creator who is All in All. So I understood all of the famous Italian best-selling writers. Do they also play part of God's substance?

I went back to reading the book by Antonio Thellung where my friend makes a fundamental discovery: starting from what the Pope had said, in his last encyclical: "The Universe develops in God, who fills it all." Thellung develops this concept: "Given that He, unique and indivisible, is by definition all in all (note" all "and not" everything "is the Christian concept of St. Paul and not that of Spinoza where He is everything in everything, also extended to Nature and not only to the intellect) without any limit, I wonder how I could define myself, since my (limited) individual is separated from everything and everyone? "

Then Thellung analyzes the problem of evil and the wicked, which exist in the world and therefore also belong to those "all".

And at this point Thellung has an intuition of those that rarely happen and are certainly the fruit of the help that the Holy Spirit gives only to the Prophets.

Here is the brilliant idea: If God were an infinite Emmenthal cheese, but without holes, it would be easy to understand His substance, which is always good and holy, that is homogeneous. But Emmenthal also has holes: what are the holes that exist in

God? They are wickedness, and since without the cheese that surrounds them the holes could not be defined in space-time, wickedness needs God to exist. Unfortunately, not only good, but also evil needs God to exist.

Deep. Deep but (maybe) not very funny: better to read the continuation of the adventures of Fabio Volo, to see if you learn new things ... and not just things known and "déjà vue"?

Conclusion and moral of the story



We must always say: Bread to bread and Wine to wine!

My page: Naturalistic Pantheism urges me to write more bullshit, to keep the attention of pantheists awake, who are ravenous like crocodiles ... But I have very little to say, after reading the whole book by Fabio Volo: *Esco per fare due passi*.

I must apologize (to Fabio Volo) for having doubted that his books also belong to the Substance of Spinoza, which is everything in everything. Well yes, reading his book, after page 40, the beautiful part arrives, and I do not describe it to you, because I would take away from you the joy of discovering it for yourself. His book is simply fun and ingenious, so it belongs by right to the Substance of Spinoza. While he writes about "shit" that amuse you and make you die with laughter, most licensed writers write serious things that make you "shit".

If Spinoza's God had no "sense of humor" he would have shot Himself a while ago! So instead of *Being* there would be *Nothing* ...

So I also say bread to bread and wine to wine, and I tell the truth: I had a great time reading it and I had some good laughs.

In my stories: The Adventures of the Cabalist Leon, I tried to write funny things, but starting from the Substance of Spinoza, it was not easy ... In the future, if I write something, I will try to start from the bottom, starting from the wisdom of the last, of the ignorant, of the barber of my cousin of Forlì, of my peasant Pasquale, of the illiterates, with whom one likes to talk about bullshit, drinking a glass of Sangiovese, or a grappa. It is not worthwhile to be a prophet today, because people have become clever!

Here is why.

The Prophet

Once the profession of the Prophet was quite profitable. It was possible to make a living by being a Prophet. Sometimes one could also become rich, especially if the King named you "State Prophet" and consulted you before making important decisions, like going to war or not. The fact is that the Prophets had understood that the future could be predicted in only two ways: either **yes** or **no**. A future event could be good or bad. The possibility of being right in the forecast was 50% of the time. If things went wrong, you could always blame the sinful people, who were punished by God, for their sins. With the French Revolution, many Prophets were guillotined and replaced by mathematicians, who with the theory of Probability said they could predict the Future. Among these mathematicians we can mention Fermat, Descartes, Pascal, Lavoisier who, besides being a mathematician, was also a chemist (who however was guillotined in Paris and climbed on the guillotine on 8 May 1794. He was 51 years old). Then there were Laplace, Cauchy, Galois, and Mersenne ... and so on.

It took the genius of an Austrian quantum physicist: Erwin Schrödinger to understand that the future could not be predicted, but it was the *probability* and the *wave function* that directed the future events. A future event was in a superposition of states until its wave function collapsed. So the future could only be foreseen when it became present. Beautiful discovery!

The profession of Prophet or mathematician was no longer profitable, and many of them became quantum physicists. No one understood what they were saying and no one understood their predictions ... because even they didn't understand a thing ... Now we have finally understood that the future cannot be foreseen. One can only

foresee the Past, with some effort ... and for this reason Leon was a Kabbalist, and he didn't foresee anything, but interpreted the prophecies of others.

However, the story of the Geometry of God has a happy ending ...



My Pantheism

Basic axioms: The sum of all that exists is the indivisible One, that is God.

During the creation God was not only the observer but all the space-time enclosed in a single infinite point, but without dimensions.

In this sense Leon was perfectly in agreement with the teachings of the Torah and with the doctrine of Buddhism, because paradoxically that One was at the same time infinite and zero ... The One was at the same time Infinite Thought and Extension, and in Him all physical and intellectual phenomena took place, without exception. The Substance was Unique and indivisible and therefore it was God. Why? It was easy to explain mathematically: being infinite, each of its points was the center of space-time. Before Creation Time was zero because the distance between each of its points was zero, so in addition to Existence, its fundamental attributes were Ubiquity and Simultaneity. Being Thought, God had a Mind (the Logos for Christians), which was the consciousness of Existence, and a physical Substance, in which events took place, but Mind and Substance were an indivisible unity and the same thing. This was obviously a difficult paradox to explain.

One could think of a transparent, undifferentiated and compact "jelly", impossible to cut, that could be counted with a single number: 1.

Spinoza had never explained exactly what his Substance was, limiting himself to geometrically demonstrating his existence and explaining his most comprehensible attributes to Man, which are only Thought and Infinite Extension. Spinoza did not give an easy-to-understand explanation to describe his Substance, but based his explanation on geometric axioms necessary for the study of geometry such as the concept of point. From these he then proceeded to build an entire building from a first brick (axiom) as the point that we have accepted as true but that no one will ever show us as true. This will never be possible because the point in itself is an absurdity: it is something that for example constructs the segment or space with other infinite points, but does not have a real extension. We accept the geometric point only intuitively.

Spinoza then gives a definition of Substance as we do to define the geometric point or any other axiom of geometry that must be accepted without proof. Let's see if Spinoza's definition is acceptable:

"Substance is what is in itself and is conceived for itself"

Not understanding anything we are obliged to find an explanation and here it is:

The definition of Spinoza of Substance seems to me to describe the Being, all that is, that is Existence, which is in itself and is conceived for itself, even if it is often compared to non-being to define it.

Being Spinoza a Jew, his definition reflects what YHWH said to Moses on the Sinai:

"I am He who is!" (I am the existence ...)

Reading his works it is easy to understand that Spinoza was very religious!

But we, being incredulous and intellectually sophisticated human beings, we need concrete examples to understand, so we can say:

"Infinite space-time is the only Body that represents the Substance of God, formed by geometric points of zero dimension or by dimensionless points of zero mass, called Logons, because atoms of the Logos (the Divine Mind). All the material that exists is made up of parts that can be divided infinitely and that therefore leave empty spaces.

Only space-time is a unique and undifferentiated substance that fills everything that exists, because between the parts of the bodies that are inside it, however small, there is always the space-time that represents the Substance of God. "

God is extended and God is thought. However, the thought of God is not a psychological process like the human one. And what is it then? It is this: individual things, including human beings, are not creatures of God finished with an autonomous existence, nor are they particles of God. They are, as Spinoza says, modifications of the Substance, they express God. The Substance, that is God, has no parts. The infinite extension is indivisible, there are no parts: what is composed of parts cannot be perfect.

Since the Substance of Spinoza has infinite extension and at the same time is One, it must be made of zero-dimensional points, which form the basis of its geometrical explanation of the Substance. Only that which is not made up of parts can form a single whole without leaving empty spaces. These are the atoms of the Logos, that is the Logons. How can Substance be infinite and at the same time One? This fact is explained by my essay: The mathematics of God.

All that occurs, that has occurred or will occur, necessarily occurs in His Substance and God is omnipotent for all that is possible.

Not even God can do the impossible.

Probability is God's dice game to make His will come true in the Universe and elsewhere. Before the probability makes them verify, the events are only probable and not certain.

Not even God knows what will happen in the future.

Only probable events often occur, unlikely events occur rarely, but sometimes occur.

Impossible events never occur.

Past events form History and Information, which is a fossil probability that has come true.

The future exists only in the human mind and cannot be predicted, because it is not part of the Being, as it has not yet occurred.

The Future and future events are governed by Probability and not by God.

Not even God can foresee the future.

Since all that occurs occurs within the Ether / Substance, which controls the laws of physics and Thought (Logos), the Creation must have taken place starting from the Ether / Substance and starting from the logons, which are the mass at rest of the photons of light. The photons in turn can be transformed into energy and therefore

into quarks, which are the basis of matter with the full consciousness of the God-Substance and with the cooperation of Probability, which, even if it is independent of God's will, is part of God because it is part of the physical laws of its Substance.

Therefore the God-Substance is the physical and mathematical Law and not the hand that causes or modifies the events.

This is a paradox that it is impossible for man to understand. To explain it one must believe that the Logos of the Ether / Substance, with its physical laws, directs the events according to its Laws, but the end result is only the work of an uncontrollable force, a potential energy of the God-Substance that identifies itself with probability.

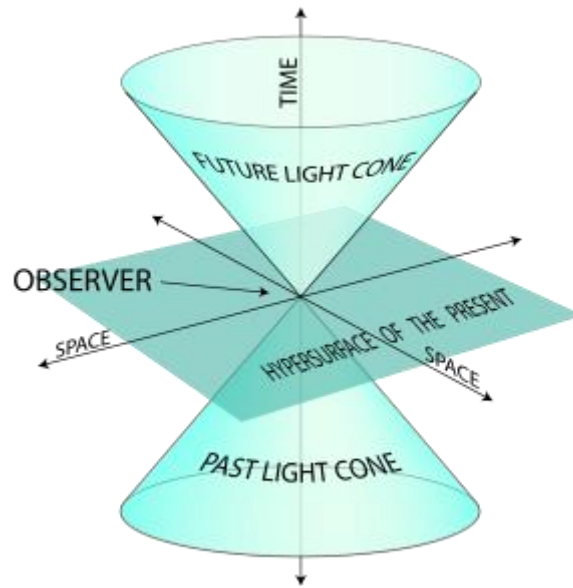
Not even the God-Substance can control that potential energy that is part of itself.

Modern quantum physics shares the view that space-time-ether is probabilistic and all events are indeterminate before occurring.

Therefore both the God-Substance and Man, who represents the fully self conscious Life on Earth, are free only in the present and cannot extend freedom to the future, because they do not control it. Spinoza consequently denies free will.

The Divine Spirit (Logos) penetrates the whole world and God causes everything that happens in the world of our experience. Not in the sense that He causes every event with a particular command, but in the sense that in the infinite concatenation of events within the Ether / Substance each is inevitably determined by the previous events. Causality in the world is absolute, no chance incidents occur; free will is a superstition of the people. God acts for the necessity of His Nature, which if we understand correctly includes a strange potential energy, Probability. His actions are inexorably perfect, like himself; in Nature there are no final causes, since their presence would presuppose free will, but there are good natural laws, precisely because they are natural, which form the "chessboard" on which the game of Life is played.

This is Spinoza's thought that I share. But mine is not an Atheistic Pantheism, because I am influenced by the thought of my ancestors, who, being part of history, influence my future thinking. Mine is a *Religious Pantheism*, because I believe in the unknown God, who hides behind Nature. If I have to explain who God is, I can't, but I know very well who He is. God is the Voice that laughs in the depths of my conscience amused by the absurdity of my explanations.



According to the Book of Genesis God was the observer during Creation

Genesis explained by Kabbalist Leon

In the Beginning there was only the Being, because the Nothing was not.

The Jews agree about that, because the Kabbalist Isaac Luria said: " You can eliminate everything, but in the vacuum that you are creating, there remains always the perfume of God. "

And we all agree about it, because modern Physics has proved that the vacuum is full of life. The philosopher Jean Paul Sartre observes, somewhat verbally prolix and long-winded, that the Being and the Nothing are intertwined, because each one depends on the other. To exist? To be true? No, to be verified ...

And this is the initial dilemma: the definition of non-being or nothing.

To solve the problem, we call non-existence the absence of something: this does not necessarily mean a hole of Nothingness in the Being, but a lack of something, and as the Ecclesiastes says: what is missing cannot be counted.

In the Beginning the Being was comparable to what? Obviously, it was compared to the Non-being, otherwise how did we know that it was?

Let us stop here because on this road (that indicated by Sartre) we never come to the conclusion ... so we have a new concept. Energy.

With Energy it is easier to reason and start analysing the problem again. In the Beginning there was only Potential Energy, because the Kinetic Energy was not there, as nothing moved. And here we all agree with Einstein and his formula. To create what is there we must start from the Energy according to the famous formula:

$$E = mc^2$$

which by now also dogs and cats know. Since Kinetic Energy is linked to the concept of movement by the formula:

$$E = 1/2 m v \text{ square}$$

it is clear that the initial Potential Energy had to exist in absence of any movement. So, everything was stationary in a space-time that was infinite, that is, because there was nothing that existed to limit it and even Time was still. I remind you that by definition Time is the measure of motion and if there is no movement time is zero.

What existed in absolute tranquillity could be expressed by the equation of Brahmagupta, properly expressed by:

$$\frac{1}{0} = \infty.$$

A permutation of it leads us to: $\infty \times 0 = 1$ when light was emitted, because this latter equation expresses the concept that at the velocity of light, taken as a constant = 1, time becomes infinite and space is reduced to zero. That 1 was the sum of all the energy that existed, besides being the constant of the speed of light.

We are now more relaxed because we can say: In the Beginning there was only the One and it was motionless, until the Potential Energy became Kinetic Energy and then Light. That One contained all that existed and all that would have existed in the future, because it possessed an infinite Potential Energy. It's clear up to here?

So far, we have taken care of Jean Paul Sartre with the trick of using Energy instead of Being, we have also maintained the validity of Einstein's Relativity and by making good use of Brahmagupta's formula we arrived at the Beginning of light.

But how do we take care of Boltzmann?

According to Boltzmann, the Entropy of the Universe increases until it becomes infinite when the temperature of the Universe will reach absolute zero. So according to Boltzmann, when the initial One transformed its energy from Potential to Kinetic, its temperature had to be infinitely hot? And if Boltzmann had said the truth then things had to be that way!

But there is another prophecy attributed to Boltzmann: as the entropy of the Universe increases, the Disorder increases, the chaos increases. So, if Boltzmann was right, in the Beginning Order had to be infinite and that initial One had to be perfectly ordered.

And here we need another definition: a state of disorder involves a symmetry between various parts that is destabilized and upset by a force or a random event. But if there are no parts, because there is only One, which has perfect symmetry, since it is not constituted by parts (except for infinite zeros), how can it destabilize its symmetry? And if force does not exist, because nothing moves, how can we think that that One was destabilized because of a force?

Well, Boltzmann was right, but he was not aware of it in his time. In fact, he invented the "arrow of time" that explains the difference between before and after.

Before the transformation of Energy from Potential to Kinetic, the One was very orderly and cold because it did not move. Then, after the transformation, what was created became very hot, though extremely ordered.

Hard to believe, but of course true!

It is with great trepidation that I, the Kabbalist, study the second principle of thermodynamics, which unlike the first leaves little hope for the future. It had been invented by Boltzmann, who then reconsidered his theory, became depressed and became ill. In fact, in 1906 Boltzmann hanged himself in Duino, near Trieste, which was the Viennese beach. The same fate happened to his successor Paul Ehrenfest, who shot himself in 1933.

The study of thermodynamics is a crazy business, as writer Kurt Vonnegut confirms in this story taken from his book *Timequake*:

"In the Booboo planet in the Crab Nebula, there lived the three sisters B-36 ... All three sisters were very beautiful, but only two of them were famous, one was a painter, and the other wrote stories. Nobody liked the third, who was a scientist and was so boring! The only thing she was talking about was thermodynamics ... The unlikable girl had imagination, that's true, but not in the field of art. She did not read books (with love stories) and did not go to art exhibitions in art galleries. When she was small, she spent every minute of her free time in the garden of an asylum for crazy people. The fools

were not dangerous, so the fact that she liked their company was considered compassionate and worthy of praise. But the fools taught her thermodynamics and differential calculus and a lot of similar things."

Clearly the study of thermodynamics leads to madness and as ultimate solution to suicide, but I, the Kabbalist, as we shall see, have other ace in the sleeve that give me hope in the future. Let's go ahead!

So, it's worth repeating that that One was perfectly motionless, perfectly ordered and perfectly cool before the Big Bang, because nothing moved inside it. First of all because he did not have an interior, then because he had no parts and nothing moved. So, we have also fixed up Boltzmann and we can move on.

When the World was created, things changed in a moment. The infinite zeros that formed the Being, expressed by the formula: $\infty \times 0 = 1$, began to move by acquiring individuality and at infinite speed the space-time became animated and became alive. The distance of the initial zeros from their neighbours, which was zero in the Beginning, became "h", the Planck constant, at infinite speed because Time was still stationary and a speed occurring with zero time is infinite: $V = S / T = S / 0$ since each number divided by zero results in infinite. To respect Boltzmann's memory, the

initial Order of the Being must have been perfect, so the distance "h" between the various parts of the Initial Being (the initial zeros) had to be the same in every direction of space-time and so we also took care of Planck. I repeat: the initial space-time had to be quantized and all its parts had to be at distance "h", Planck's distance, from nearby parts, to respect the initial symmetry. But the speed of that transformation had to be infinite because the initial time was still, so since the temperature is the measure of motion, if the movement was at infinite speed, the temperature must also be infinite. Then there was perfect order and infinite temperature. So, we have integrated Planck with Boltzmann. There are, however, still two problems to solve.

How come is the Universe, albeit enormous, finished?

How has matter been created from the initial movement?

We have to introduce the logon and the tetrahedron of Reuleaux that have already been abundantly explained in other essays by the Kabbalist Leon (that is me), but here let's repeat the fundamental concepts. The logons filling all the space-time without leaving any emptiness solve the problem. The logon becomes a photon at the time of Creation, and then becomes a quark at the four vertices of the tetrahedron, filling not all infinite space-time, but only what can be filled at the speed of light. This is to respect Einstein, who with the theory of Relativity, prevents bodies like quarks with

zero to infinite mass, to travel faster than light. Thus, even though space-time is infinite, the quarks that formed the matter of the Universe formed only a Universe whose matter expanded at the speed of light, therefore a finite Universe, albeit immense. The matter was created by the transformation of the initial logons into photons and then into quarks by placing them neatly in an orderly array of Reuleaux tetrahedrons. The Reuleaux tetrahedron consists of four probability spheres surrounding four quantized logons or quarks (i.e. particles that are simultaneously located here and there within the spheres). The spheres are joined to each other so that the centre of each sphere is on the surface of the other three. The distance between the quantized logons equals "h", the constant of Planck. Since for quantum mechanics every logon may be simultaneously in every point of its probability sphere, the tetrahedron becomes theoretically a solid that fills space-time completely in its interior. Infinite tetrahedrons fill then the Universe without leaving empty spaces. From these tetrahedrons are formed neutrons, protons and electrons and all the elementary particles.

But these are only details. The problem for a Kabbalist is another: what is beyond the Kinetic Universe? Looking at the Einstein-Minkowski diagram illustrated at the beginning, what was outside of the two light cones of the past and of the future? To explain inertia and therefore gravity, I was forced to think that space-time keeps going beyond the Kinetic Universe and that it is made up only of logons. But this is a hypothesis that is best explained with Theology. That part of space-time beyond the Kinetic Universe is the Substance of God that extends also within the cones of light of the past and of the future. The Tetrahedron shown below is the Tetrahedron of Reuleaux. Logons occupy the vertices of the Green Tetrahedron inside the four spheres, but in reality, logons can be found anywhere within their probability sphere.

I proposed to call the Green tetrahedron Aleph, because it represents the Holy name of God: YHWH, the only reality that exists, and because infinite Alephs fill all space-time available...which is One.



And now, we can summarize Melli's book with his words:

My Pantheism

My pantheism is not a religion, because it does not force anyone to believe, it is not a philosophy because it does not require anyone to think according to a pattern, it is not a science, because it cannot be demonstrated by experiments and cannot be measured by a meter.

So what is it? You will ask ...

My Pantheism is "admiration" for this wonderful Nature, for this wonderful sky, for this wonderful sea that exists here where I am and I realize that I am at the center of the Universe, because all the rays of light converge inside my eyes.

My Pantheism is a thanksgiving for what exists out there and that converges in the *zero point* inside my eyes, because I am.

I realize that everything that exists is a "good thing", which seems to possess a "good spirit", which seems to behave as if it had a "good purpose".

And I don't know whom to thank.

If there is a God, He must be the infinite sum of All this, the Unity of all these infinitesimal elements of space-time that I interpret as:

$$\text{infinity} \times 0 = 1 \text{ (a special } 1 = \Phi \text{)}$$

And I am an infinitesimal part of that Whole, at the center of the infinite space-time and I thank Him, but at the same time I thank myself. And me, who does see and measures all this: who am I? Here is what I am:

$$0/0 = 1 \text{ (}\Phi\text{)}$$

I am a zero of that Whole, which is also One, because it exists.

And I didn't ask anyone to exist, but I'm because the One is.

And I thank the Being, that is He who is, because He could not have been.

Instead He chose to be.

Part III

Introduction

In this attempt to understand the geometry and mathematics of God, Massimo Melli had discovered by chance that the division by zero and infinite introduced by Brahmagupta were fundamental operations needed to solve many of the divine mysteries.

Classical mathematics considered such operations impossible nonsense, yet those operations were perfectly acceptable for James Anderson, English computer scientist, who around 1997 had created the new mathematics of Transreal Numbers. Transreal Numbers are an extension of the real numbers \mathbb{R} that allow the division by zero introducing three new numbers, namely ∞ , $-\infty$ and Φ as follow:

- a) $1 / 0 = \infty$ and its reciprocal $1 / \infty = 0$
- b) $-1 / 0 = -\infty$
- c) $0 / 0 = \Phi$ (nullity)

Axioms of transreal Mathematics compared with Mathematics of God

$\Phi + a = \Phi$ (additive nullity is like ∞)

$(-) \Phi = \Phi$ (is like 0)

$\infty - \infty = \Phi$ (is like 0)

$\Phi \times a = \Phi$ (multiplicative nullity is like ∞ or 0)

$\infty \times 0 = \Phi$ (is like 1)

$0 / 0 = \Phi$ (is like 1)

$\infty / \infty = \Phi$ (is like 1)

Conclusion

When Transreal Mathematics are applied to the Mathematics of God, the three sacred numbers 0, 1, and ∞ that describe the Divinity, are mutually commutative, depending on the circumstances.

If these results appear to be in conflict with classical mathematical logic, it is because:

The Nullity Φ is not a number, but a logon, a dimensionless point of the Substance of God.

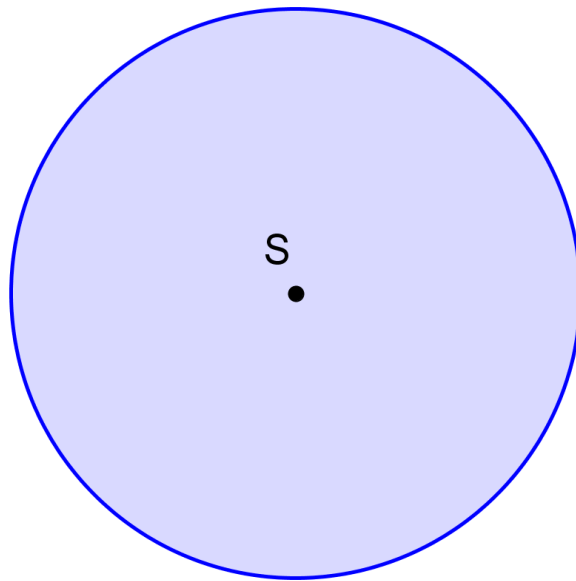
- a) For any transreal number t , we have that $(t \nless \Phi)$ and $(t \nless \Phi)$.
- b) "Nullity" is a number not comparable regarding its magnitude with any other transreal number. In other words, we can say that "nullity" has no defined size and, for this reason, it represents the *Indeterminate* translated into mathematics.

In fact Φ can be any number, from zero (a logon), to the sum of any number of logons, to the sum of ∞ logons.

The Geometry of God (Transreal Version)

Walter Gomide (UFMT).

Excerpts from Massimo Melli's "La Geometria di Dio" translated into Transreal Numbers



Let's consider the following part of "The Geometry of God" (Massimo Melli, 2018):

"The **Logon** is a geometric point endowed with existence. It has no size nor mass and can be defined as the resting dimension, the resting mass and the resting time of the Photon. The geometric point is something that has taken its essential property from the concept of position, that of being here rather than there. Every event that occurs in space-time has its origin in a Logon, which is nothing but a geometric point endowed with physical existence. If space-time is an infinite sphere, each Logon, being equidistant from its infinite circumference, is its center and is here, right here at the center of space-time. Of course, space-time is none other than Spinoza's Substance, who never said it was made up of infinite Logons, but this is the great discovery of the Kabbalist. "How is it possible that all Logons are all here instead that

there? They are all superimposed on the same point, a "singularity" which is 1, that is, the infinite Unity of God, before Creation "(Melli)

The Logons are situated at the centre of spacetime (Spinoza's Substance). They are superposed (*sovrapposti*) at a singularity; and I call such a singularity as "a point at Nullity" $\Phi = 0/0$. Nullity could be seen as the superposition of all numbers, since it is the indeterminacy that results from dividing zero by zero. If one calls $\oplus\mathbb{R}$ the superposition of all real numbers, then

$$\Phi = 0/0 = \oplus\mathbb{R}.$$

In the same way, if we denote by Λ the set of all Logons, then $\oplus\Lambda$ is the *superposition* of all Logons; $\oplus\Lambda$ is at the centre of spacetime, a "metaphysical" spacetime: a spacetime that is situated in God's Mind. We can define that the centre of such "metaphysical spacetime" that gives us the Unity of God's Mind: all lies in God's Mind in the state of such superposition. (It could be defined also: **The frightful sphere of Pascal**. According to Pascal: God is a (frightening) sphere whose center is everywhere and its circumference nowhere. But it was Cusano that made a fundamental discovery: in the infinite circle, in which center, diameter and circumference coincide, he saw an image of God, which at the same time is inside everything, penetrates it and embraces it.)

Before the space-time arose, everything was superimposed on the Thought of God; everything was positioned in the point of Nullity.

Then there was the absolute beginning: The logons drifted away from each other to create the four-dimensional space-time: the fundamental Riemann space.

But, before the formation of the four-dimensional-Riemannian-continuous-space, it was necessary for God to create the *spinorial space*, a special kind of vector space which was "responsible" for every rotation in the Riemann space: from Nullity the creation of Tachyons, Photons and Bradyons (the initial particles of the four-

dimensional physical Universe), involved the necessary step through the initial “spinors”, the particles that fill the spinorial space.

The truth that every Law of Physics was in reality a Law of God, was very familiar to Melli’s work. In fact in one of his essays, reproduced below, he pointed out that the ***Uncertainty Principle***, also called Heisenberg uncertainty principle or ***indeterminacy principle***, was a Law of God. That principle, articulated in 1927 by the German physicist Werner Heisenberg, stated that the position and the velocity of an object cannot both be measured exactly, at the same time, even in theory.

The uniform motion of the *Logon* (Melli’s essay 2018, Academia Edu.)

The question is: does the *Logon*, the atom of the Mind of God, stand still or move? By *logon* we mean the atom of space-time that has neither dimension nor mass, i.e. the geometric point endowed with existence and potential energy, the physical point of zero dimension that fills all the space-time without leaving empty spaces. Endless logons form the substance of Spinoza, which is All in All and represents the Mind of God.

For Heisenberg's infamous uncertainty principle the *logon* can not sit still, if it exists, so it has to move otherwise this famous formula would not work:

$$\Delta x \Delta p \geq \frac{\hbar}{2}$$

And the Delta x Delta p product would become = 0 (God forbid and free us!)

Since (as we have seen) the *logon* is at the center of the Universe, its position is known, and so $\Delta x = 0$, since all the rays of the frightening sphere of Pascal coincide with the circumference that is zero. It follows that it can not move sideways, up or down, without creating or utilizing kinetic energy and therefore gravity, but at least it can rotate on itself without changing position?

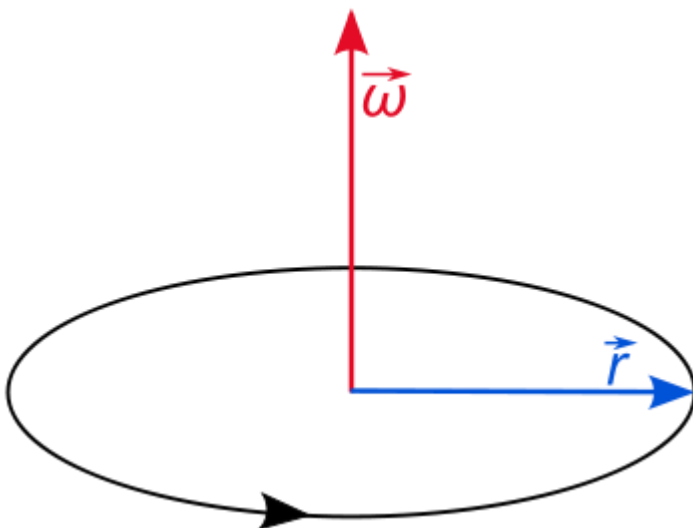
I think so, so it will have an angular velocity and will rotate on itself in a clockwise or counter-clockwise direction, with a uniform circular motion ... you can not escape from there.

But here the problems begin: *In Principio* (Bereshit = Biblical Hebrew) nothing moved, so Time was Zero? No, because the *logon* rotated on itself.

The problem was that the *logon* had zero size, so its radius, was zero. But can a zero point rotate around its axis? Of course it can rotate!

No problem!

And depending on its clockwise or anticlockwise rotation, it creates a vector directed upwards or downwards, even if the radius is zero.



But when there was only that One, located at the zero point, there was neither high nor low, because there was nothing relative to which one could define and compare

the up with the down. But at least the rotation Time was there. The problem was the arrow of Time, which was indeterminate, because the vector pointed in all directions at the same time. And how long was the Time? It had to be the Time of God, which was zero, because the Before and After coincided in an eternal Present, since God is immortal. **But that zero was not nothing, it was something.** It was the indivisible atom of Time: the *Kronon*, the smallest non-zero part of Kronos, the God of time.

So to find the rotation speed you had to divide in this formula:

$$\omega = \frac{2 \cdot \pi}{T}$$

a circumference of zero length, a *logon* (which was something other than nothing) for a time zero, a *Kronon* (which was something, because the *logon* rotated) and the result was:

$$0 / 0 = 1 \text{ *(a logon divided by a kronon)}$$

The speed was 1, which is always the same even as squared because

$1^2 = 1$ and is also its square root. And that was the Unity of all that exists.

Everything was there in that point, including the infamous Heisenberg formula, which cannot be 0, but nobody prevents it from being 1.

* The proof that $0/0 = 1$ is in the Mathematics of God. And now, after Walter Gomide's interpretation, that 1 is a point of "nullity": $0 / 0 = \Phi$

Discussion

The logon, like the photon was rotating around its axis, with spin 1. It was alone in space-time in a point of "nullity" $0 / 0 = \Phi$ and therefore its sense of rotation was indeterminate.

How was created the substance of the Universe, starting from the point of nullity that contained infinite logons of spin 1?

The spinors were there together with the Substance of God!

The Creation

And then the creation begins: from the set $\oplus\Lambda$ the physical spacetime comes to existence. By spinning and moving at an infinite velocity in an interval of time equal with zero, the Logons are separate from each other and travel a distance equal with Φ , *the superposition of all possible infinitesimal paths between two neighbourhood logons*, since we have:

$$\infty \text{ multiplied by } 0 = \Phi$$

After a zero interval of time and being situated from the centre at Φ distance, a *metaphysical distance*, a *physical distance* between Logons emerges, and such a distance, according to General Theory of Relativity, is equal to the Riemann metric

$$ds^2 = g_{\mu\nu} dx^\mu dx^\nu$$

in which imaginary numbers are prevailing over real numbers; we are in the realm of superluminal particles, since the Logons achieve an infinite velocity after being separate from the superposition state $\oplus\Lambda$; **we are now in the realm of *Tachyons*, non-observable particles from which the observable Universe comes.**

If we call the imaginary metric of Riemann, where we can find *Tachyons*, with its imaginary time by $ds^2\langle i \rangle$, then we can stress that the transformation:

$$\oplus\Lambda \rightarrow ds^2\langle i \rangle$$

is the first state of the creation: the passage from God's Mind to the non-observable world of superluminal particles. The distance $ds^2 < i >$ we can call also by \hbar (pronounced "h-bar"): According to Melli:

"And you will say: then how do they fill all the space-time? The answer is: when at the moment of creation the Logons have become quantized, the distance " \hbar " (pronounced "h-bar") has been inserted between each Logon and its neighbors, in order to create an infinite symmetrical spatial lattice, with hexagonal symmetry, this happened at infinite speed, because when all the Logons were gathered in the "singularity" the Time was stopped and a movement that occurs in zero time occurs at infinite speed. The quantized Logons, moving at infinite speed, became technically Tachyons (even if the Tachyons have never been found ... until now) to be able to move faster than light ". (Melli)

But now we must explain how the observable Universe emerges. According to Melli (Melli)

"The quantized Logons (**Tachyons**) then became **Photons** immediately, when God said: Let there be light! (1) After that, by becoming photons, they slowed down their speed and travelled at the speed of light, creating a finite Universe that expanded at the speed of light "

(1) The words of God introduced Time in the velocity equation, creating the speed of light and light emerged from the abyss of Φ ...

The multitude of existing Tachyons suffers a deceleration and, with this, the Tachyons cease to be *superluminary particles* and become photons; thus, begins the observable Universe with its Riemann metric predominantly based on the real numbers. In this

way, the second transformation that goes from imaginary metric to real metric (from non-observable Universe to observable universe) takes place:

$$ds^2 \langle i \rangle \rightarrow ds^2 \langle r \rangle, \text{ in such way that } ds^2 \langle r \rangle \geq 0$$

Now a new question arises: how has probability entered the infinite substance, which is already considered in its expression of the Universe observable? The answer lies in demonic action:

"[...] God is the certainty of existence, and not the guarantee that events will end well. This means that God is probability 1, that is certainty, but this is true for Him, not for me. His infinite certainty cannot guarantee that there is also no "cosmic bad luck", which is a negative probability equal to -1.

And that is the Devil, who has no substance, but only negative probability. The sum of the two probabilities of God and the Devil is therefore: $1 - 1 = 0$, and is represented by the Logons who, becoming photons, fill all the space-time. It takes very little to destabilize the zero of that probability, so it is not God who decides but the probability, whose symbol is Ψ , that is, the Greek letter Psi (which represents the Devil's pitchfork) "(Melli)

Around each of the logons, which now manifest themselves in the observable space in the form of infinite (2) photons, there is certainty of existence: the proof which ensures that each photon, originally, was in the form of an atom in the Mind of God. But this "offends" the Devil who, having no substance, perturbs every point of observable space in the form of a "dialectical tension" directed at the certainty of

existence. The function $f^{(1-1)}$ introduces the probability Ψ at each point of the observable universe. Namely:

$$f^{(1-1)}(ds^2 \langle r \rangle; \alpha) = \Psi_\alpha$$

In the expression above, Ψ_α means the demoniac perturbation of the certainty of existence (God's Mind origin) at every point α in the observable Universe – *the probability in itself*.

(2) A slice of the infinite Substance of God, which according to Isaac Luria was used to create the World, contains infinite dimensionless logons, so infinite photons were created even though the World was of finite dimensions. For Melli's Mathematics of God, an Infinite divided or multiplied a number of times N (different from Infinite), remains Infinite.

But what is the source or the ontological origin of the probability? According to Melli:

"What is the probability? It is not known, but it seems to have the characteristics of a very often unlucky potential energy that has its roots in space-time, so it is also part of the substance of Spinoza "(Melli)

With the help of transreal numbers, we can speculate about the nature of probability. Each point of observable space-time, Spinoza's infinite Substance in the form of the physical Universe, arose from a tachyon that slowed down to become a **photon** in the Universe. In turn each tachyon arose from a logon that was amalgamated with other logons in the divine Logos: photons were created (as soon as God created Time with an act of His will), out of time and space, and the energy needed to get them out of this initial state is infinite. Thus, each point in the observable Universe originated from a logon, and it took an infinite amount of energy to withdraw the logon from its initial

superposition state to get it to the punctual expression of a photon in the observable Universe. Therefore, at each point α of the observable universe, there is the action of the potential energy U_α :

$$U_\alpha = \infty_\alpha - \infty_\alpha = \Phi_\alpha$$

which expresses the transformation of a superposed logon into a photon.

According to a possible inter-interpretation of Transreal arithmetic, nullity Φ can be seen as the superposition of all real numbers. Thus, by analogy, Φ_α admits being interpreted as the superposition of all points of the observable Universe; a “degenerate” superposition, since it is a physical superposition: the “true” superposition is of metaphysical origin and it is found in the Mind of God, before creation, in the form of the aforementioned $\oplus\Lambda$ superposition of all the infinite logons. (3)

(3) And the numbers (the Logos) became Substance...

“et Verbum Caro factum est”

In this way, we can speculate and affirm that potential energy $U_\alpha = \Phi_\alpha$, “degenerate superposition”, is the cause of the insertion of the probability Ψ_α into the point α of the observable Universe. Namely:

$$\Phi_\alpha \rightarrow \Psi_\alpha$$

Note: it should not surprise us that potential energy $U_\alpha = \Phi_\alpha$, or that $\Phi_\alpha \rightarrow \Psi_\alpha$,

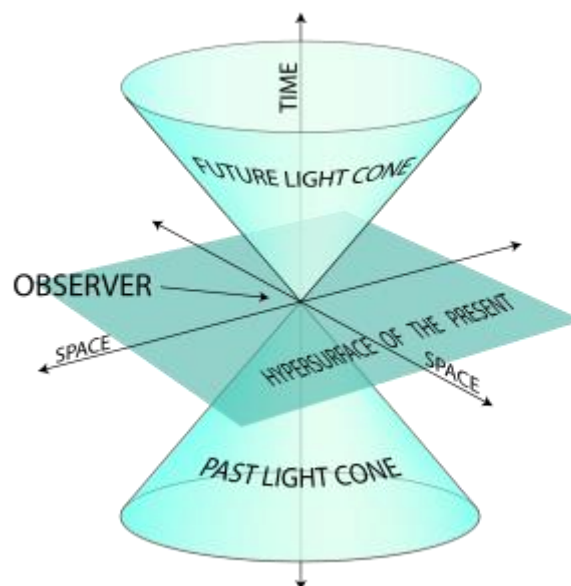
In fact, by definition, both the Potential energy U_α and the Probability Ψ_α are indeterminate quantities that can be described with the nullity Φ_α .

And what about the neighbourhood of the primordial point “zero” of the Observable universe? In other words, what about Φ_0 or Ψ_0 ?

In other words, what about the potential energy of U_0 ?

For answering such a question, we must have in mind that at point “zero”, the entire Observable Universe was condensed in an atom very similar to the metaphysical superposition of all logons, namely $\Theta\Lambda$. At point zero, the Observable Universe was surrounded by the certainty of God’s Mind; at point zero, God’s Mind enters into the Universe as the “God’s Eye”. According to Melli:

"The time of the future is still, until it becomes present. Before the Universe occurred from the past, the red dot represented the apex of the cone of certainty of the future Universe, which included the sum of all the infinite probabilities of the future events that could occur within the Universe. Also, in this case the sum was 1, that is certainty, in fact all the matter that will constitute the future Universe will be formed starting from that point of probability 1. That point also contained in itself the potential of the onset of life on Earth. Everything was there at that zero point, everything was there "*sicut erat in principio*" (Melli)



Let's introduce the relation $\delta_{\Lambda\alpha}$ that evaluates how the point α of Observable Universe is similar to the metaphysical point $\Theta\Lambda$. We can define that relation of similarity as:

$$\delta_{\Lambda\alpha} = \frac{1}{T},$$

in which T is the "absolute" time interval (introduced by God) between the point α and the "metaphysical point" $\Theta\Lambda$. In the same way, we can consider that potential energy U_α can be considered as directly proportional to $\delta_{\Lambda\alpha}$:

$$U_\alpha = k \delta_{\Lambda\alpha}.$$

If we consider the point at zero, the point that represents the "eye of God", we can admit that such a point is absolutely "glued" to God's Mind and His superposed logons $\Theta\Lambda$. **Thus, T is equals with "zero"**. Then, we have the following "Brahmagupta equation":

$$\delta_{\Lambda 0} = \frac{1}{0} = \infty$$

Then,

$$U_0 = k\infty = \infty.$$

Thus, at point "zero", the potential energy is infinite and it is not "degenerate" into "nullity", and at zero **there is no "demoniac probability" Ψ_0** : all is certainty at "zero", since the initial zero reveals the "perceptual field" of God, the infinite Spinozian Substance.

For all points α at Observable Universe, $\alpha \neq 0$, we can expect that $T = \Phi$: the time interval (*a continuous path* in Observable Universe) between a physical event and the metaphysical situation $\oplus\Lambda$, an event that occurs before physical time has begun, cannot be measured by an unique real number and, thus, is indeterminate: all real numbers, in *superposition state*, could be the value of such time measurement.

Thus, as pointed out before:

$$U_{\alpha} = k\Phi = \Phi .$$

Then, at every point of the Observable universe different than the initial zero, there is a disturbing potential energy, and such a potential energy introduces the probability into the Physical Universe.

Now we can go further and start to speculate about the Nature of the Infinite Substance to that extent it is seen, at the same time, as being infinite in Extension as well as in Thought: God is infinite in Extension and His thought, also infinite, fills the entire space. According to Melli:

"Spinoza's Substance is at the same time *Thought* and *Infinite Space-time Extension*. And the Substance for Spinoza is Everything in everything that exists, including thought [...]"

To understand how God can be infinite in Extension as well as in Thought, it is necessary to consider the sacred God's Mathematics based on 0, 1 and ∞ . In Melli's words:

"Paul Davies in his book: the mind of God, expressed the concept: "I believe that the proposal of the existence of these" laws of initial conditions "strongly supports the Platonic idea that the laws are" out there "and transcend the physical Universe. Sometimes it has been argued that the laws of physics originated with the Universe;

if that were the case, then such laws could not explain the origin of the Universe, because the laws would not have existed as long as the Universe had not existed ".

It was clear that their thinking must now be analysed and explained using the methods of the Kabbalists, to define each definition in detail, to divide each concept into four parts, to analyse each hypothesis by explaining each letter of the alphabet. In other words, it was necessary to write the Kabbalah of the Talmud of Scicli.

However, there were problems that had to be overcome before proceeding.

Leon had told Jacob: "After spending years studying the Kabbalah, I have come to admit that I fully agree with the Borges analysis on the methods of the Kabbalists. They do exactly the same work that astrologers do when they interpret the movements of the stars to predict the human destiny. Given that the Torah represents revelation and was revealed to the Hebrews with the Hebrew alphabet, but to expect that every single letter of the alphabet and its permutations or numerical values have a meaning regardless of their position in the text, would be asking too much of the fundamental intentions of the Holy Spirit.

The Kabbalists, confusing the complicated question of deciphering the message of the Holy Spirit, ridicule themselves before an honest scientific truth. Therefore, in my explanations I will try to avoid the mistakes of the Kabbalists and I will try to give only the definitions necessary to explain my theories. "

Then Leon added: "To avoid falling into error I have simplified the traditional Kabbalah, avoiding using the usual 33 numbers (22 letters of the Hebrew alphabet, ten Sefirot and the Unity of God) to explain Creation. I limited myself to using the three sacred numbers of my Mathematics of God, that is: 0, 1 and infinity. Because their permutations explain both the Unity of God and the infinite Substance of God. These are the numbers of the famous equations of Brahmagupta:

$1/\infty = 0$ and

$$\frac{1}{0} = \infty.$$

that Brahmagupta wrote in 628 A.D., without worrying about the philosophical implication of concepts like zero and infinity."

Now there arises the question: How can God manifest Himself in the Observable Universe as an Infinite Extension and an Infinite Thought by using only His Mathematics based on 0, 1 and ∞ ?

Let's us consider now that the triplet $\langle 0, 1, \infty \rangle$ is the essential of Transreal Numbers, and that Transreal infinity ∞ can be related to any of Cantor's transfinite alephs:

$$\aleph_0, \aleph_1, \dots, \aleph_k, \dots$$

Let's now return to the set of Logons Λ whose infinite elements lie in superposed state in God's Mind before the creation, namely, the set Λ is **situated** in God's Mind before the creation as $\oplus\Lambda$.

Within the set $\oplus\Lambda$, let's consider a specific logon L . Such a logon has related to it an infinite set I of "God's instructions" whose cardinality is $\aleph_0(4)$

(i.e. instructions that can be counted). We can say that the set of "God's instructions" are all mathematical properties related *exclusively* to the logon L that must be actualized through physical-time. Thus, to each logon L , we can relate the set I .

(4) \aleph_0 is the only infinite set of Cantor that can be counted.

Each set I is "linked" to a unique logon L in God's Mind. Then, we can say that each logon has its conscience "I" in God's Mind, and these sets I are *dimensionless*, since the logons have no dimension.

In fact, according to the Measure Theory, the size of the logon L is zero, since L is a point, and I has a size equal with zero, since it is a denumerable set of instructions – according to Measure Theory, every denumerable set has measure equals with zero.

Then, by calling the size of a generic logon L by $\mu(L)$, we can evaluate the measure or the size of the infinite set $\oplus\Lambda$, the set of all superposed logons– **in order to do such**

an evaluation, we are using the axiom of choice according to which we can index with a number (a finite or an transfinite) each logon in God's mind.

$$\mu (\Lambda \oplus) = \mu (L_1) + \mu (L_2) + \mu (L_3) + \dots + \mu (L_\omega) + \dots = 0 + 0 + 0 + \dots + 0 + \dots =$$

$$\infty \cdot 0 = \Phi$$

(in the formula above, ω is the first transfinite ordinal number; we are presuming that there is, at least, \aleph_0 logons in God's Mind).

Thus, as it was to be expected, the size of the set Λ is equal with Φ . If we consider that each logon L_k has associated to it a set I_k of God's instructions whose cardinality is \aleph_0 , then we can derive the following identity:

$$\mu (\Lambda) = \mu (L_1) + \mu (L_2) + \mu (L_3) + \dots + \mu (L_\omega) + \dots = \mu (I_1) + \mu (I_2) + \mu (I_3) + \dots + \mu (I_\omega) + \dots$$

$$= 0 + 0 + 0 + \dots + 0 + \dots = \infty \cdot 0 = \Phi$$

In other words, the equation above says that the set of the logons with their instructions is the same point of the set of the pure logons: in other words, each atom of space that forms the Universe is an atom of God's Thought: when God created the **continuum** of spacetime, He also created a **continuum** of Thoughts that rules over each logon, over each *Tachyon or Photon*.

Now a crucial problem occurs in that attempt to understand how God creates the world: how the continuum spacetime of the Universe, observable and non-observable, comes from the single atom $\oplus\Lambda$ that lies in God's Mind and have "nullity" as its measure? In other words: **how the entire and continuous Universe comes from such an "absolute discreteness"?**

According to Melli:

"One of the most complex" labyrinths "of human thought is the relationship between continuous and discontinuous space-time. Since ancient times Pythagoras had raised the problem of what space was, which is intuitively continuous, but we know that we can divide it into infinity because the result of division is always a dimension that, as such, can be further divided. The search for the fundamental particle to fill the space so as not to leave voids had continued for centuries, until Leibniz introduced the concept of "monad", a particle so small that it was not made up of parts and therefore it filled the space without leaving empty spaces. In my book: the Talmud of Scicli (which can be read on my blog in Google) I refined the concept (I wonder if I'm right) with the concept of "**logon**", a particle not only of zero size, but also of mass equal to zero, whose structure is only constituted by its existence as a point of space-time. The logon is only endowed with potential energy, when it is immobile, but manages to create kinetic energy, and therefore mass, when it moves.

A logon is therefore the mass at rest, the size at rest and the resting time of the photon.

The logons, being of size equal to zero could fill the whole space without leaving empty spaces forming a continuum. All this is obviously in conflict with the theory of quantum mechanics, whereby energy manifests itself only as "**quanta**" of energy, discontinuous and separated by the distance " \hbar " (pronounced "h-bar"). A second dilemma is how to balance gravity / inertia, which are properties of continuous space filled with logons, with quantum theory (which is made of discontinuous particles) which works remarkably well to explain physical reality "

We can try to elucidate such a mysterious passage from discrete to infinite continuous spacetime by considering the following train of thoughts: The set $\Theta\Lambda$ can be considered as an atom in which we can find \aleph_0 instructions of God "linked" to each logon. Then, in the set $\Theta\Lambda$, one can replace each logon L_k for its instructions I_k , and the following identity emerges:

$$\oplus\Lambda = \oplus L_k = \oplus I_k$$

The cardinality of the set $\oplus I_k$ is the addition of the cardinalities of each I_k . Since each cardinality of I_k is \aleph_0 , then the cardinality of $\oplus I_k$ is also \aleph_0 . Thus, we can affirm that

$$\text{Cardinality } \oplus\Lambda = \text{Cardinality } \oplus I_k = \aleph_0$$

So, we can postulate, from Cantor's theory of sets, that the **continuous Universe**, named by **M**, has as its cardinality the cardinal number of all *possible subsets that we can obtain in* $\oplus\Lambda$. In other words:

$$\text{Cardinality } M = \text{Cardinality } 2^{\text{Cardinality } \oplus\Lambda} = \text{Cardinality } 2^{\aleph_0} = c$$

We can explain the equation above as following: all points of the Universe are made by combining logons (subsets of $\oplus\Lambda$), and such a combination of logons in the Universe (Tachyons or slowed down Tachyons -photons) are the points of the Universe **M**; and the totality of these points has as its cardinal number **c**, the cardinal of the **continuum**. Then, by means of Cantor's Transfinite Arithmetic, we can go from the atoms $\oplus\Lambda$ in God's Mind to the entire continuous Universe **M**.

Let us consider each logon **L** related to a "metaphysical quadruplet":

$$\langle 1, 0, \aleph_0, \Phi \rangle$$

Let's call such quadruplet by the "Reuleaux Quadruplet" or Tetrahedron of Reuleaux* (see definition below). Each component of that quadruplet has a metaphysical meaning:

- a) **1 = the perfect Unity of God as an infinite Substance that gives a perfect individuality to each logon;**
- b) **0 = the absolute size or measure of each logon;**
- c) **\aleph_0 = The laws or instructions that lie at every logon; \aleph_0 represents the “conscience” of each logon that comes from the Absolute Conscience of God;**
- d) **Φ = the place in God’s Mind at which all logons are in superposed state before the creation; the eternal position from which the initial zero, the “eye of God”, comes as the first physical manifestation of the Infinite Substance of God.**

Note: The geometry of the Reuleaux tetrahedron could be utilized to represent a “continuous” space-time.



Usually the Reuleaux tetrahedron represents four spheres of probability surrounding four quantized logons (atoms of space-time) interlocked so that the center of each sphere is on the surface of the other three, at the center of the four spheres is a tetrahedron that contains a space-time common to all four spheres.

This central tetrahedron that I propose to call "Aleph" has some interesting properties:

- 1 - Each point of its volume is common to the four quantized logons.
- 2- The distance between its vertices is assumed equal to " \hbar ", the Planck constant.
- 3- Its total probability is shared 1/4 among the four quantized logons.
- 4- Since the logons (ie the space-time atoms) are dimensionless physical points, this central tetrahedron or Aleph, despite being of limited size, contains infinite atoms of

- space-time and its total probability is 1.
- 5- Any possible event that has a non-null probability to occur within the Aleph will be verified in it, as if its space-time were continuous.
- 6- The sum of infinite Aleph fills all the infinite space-time available.
- 7- It follows that the space-time inside the Aleph is a "continuum".

In this case we choose to explain the unity of the quadruplet

<1, 0, \aleph_0 , Φ >

with the Aleph, which represents the Holy Tetragrammaton, **YHWH**
the Name of God. (5)

(5) The mystery of the Word (the Name of God) becoming Substance is analysed.

Now we can try to figure out how the Name of God, in each of the metaphysical quadruplet

< 1, 0, \aleph_0 , Φ > ,

that generates "infinitesimal Reuleaux tetrahedrons" in every point of the Universe. Basically, these infinitesimal Reuleaux tetrahedrons are regions of *possibility* that surround all logons, being these tachyons or photons. Besides that, such possible tetrahedrons put into the physical world the seven properties above listed related to every "tetrahedral regions" of the continuum of spacetime.

First of all, let's consider four logons:

< L_1 , L_2 , L_3 , L_4 >

Each logon in the quadruplet above, has \aleph_0 instructions; then, from each logon in the quadruplet, we can derive a *possible continuous world* $M = 2^{\aleph_0}$. Thus, from the quadruplet above, emerges a new quadruplet compound by *four continuous possible worlds*, namely:

$$\langle M_1, M_2, M_3, M_4 \rangle$$

We can assume that these *possible continuous worlds* are “spheres of possibilities” whose centre lies at each logon.

Let’s consider the intersection of these four spherical possible continuous worlds. Such an intersection is a possible region of the Universe that has the geometrical aspect of a “very small Tetrahedron of Reuleaux” whose distance between its vertices is $h/4\pi$. **Such a possible tetrahedron of Reuleaux surrounds every point of the Universe: for every photon or tachyons in the Universe, there is a very small tetrahedron of Reuleaux of possibilities. Then, to every point α of the Universe, we can relate a probability ψ_α (the image of “Nullity” Φ), a very small tetrahedral volume ε (the image of “0”), a continuous 2^{\aleph_0} of points inside the volume ε of the possible tetrahedron of Reuleaux (the image of “ \aleph_0 ”), and the distance between the vertices equals with $h/4\pi$ that gives “mathematical and formal unity” to the tetrahedron (the image of the Unity “1”).**

Then we have the following relation between quadruplets

$$\mathbf{YHWH} \rightarrow \langle 1, 0, \aleph_0, \Phi \rangle \rightarrow \langle h/4\pi, \varepsilon, 2^{\aleph_0}, \psi_\alpha \rangle$$

From the “Name of God” to the quadruplet that presents the essential properties of the possible tetrahedron of Reuleaux that surrounds every point of the Universe, the causality becomes more physical than “theological”.

Now we can picture how the Riemann space came from the set of all \aleph_0 logons that are superposed at “Nullity”, a point outside the continuum of space-time.

At Nullity Φ , **before the Creation would take place**, all logons are superposed in a point, and their geometrical arrangement in that metaphysical situation is described or modelled by the mystic quadruplet

$$\langle 1, 0, \aleph_0, \Phi \rangle,$$

the first expression or the first emanation of the name of God YHWH.

Then, in God's Mind, all logons are **sizeless** (0), they have a denumerable number of instructions (\aleph_0), have a perfect individuality (1), and are all "outside" the physical space (the point at Nullity Φ). As Melli says, in that initial situation and in the immediate successive instant, the instant $T = 0$, the logons are separated and become Tachyons:

"Before Creation, the Planck distance between the logons was: $\hbar = 0$, because nothing moved and time was stopped. Then in the instant after Creation the logons were separated from each other and became Tachyons, particles that travel at infinite speed, since Time stopped and a movement that takes place with time zero, occurs at infinite speed" (MELLI, p.41).

And the creation continues from the superposed set of logons $\Lambda \oplus$ to the world of Tachyons and photons:

"How did the symmetry occur? We must imagine that Creation occurred from a plane, the *Plane of God*, which separated the Past from the Future, as shown in Figure 5, and was therefore made up of infinite zero points (the logons).

These logons were in contact with each other, leaving no gaps, because they were of size = 0 and between two consecutive zeroes the distance was zero. They formed a unique and undifferentiated substance, the Substance of God that filled everything that existed before Creation (so it was also infinite). At the time of Creation, the logons separated, at infinite speed, preserving between them, on the first plane 0, the distance \hbar between the vertices of the triangles, then, again at infinite speed, on the first plane 0 overlapped all the other planes that constitute reality, one after the other, at the speed of light, and always at the distance of Planck \hbar . The speed, from infinite, had slowed down and become the speed of light, because the logons had become first tachyons and then photons, when God had said: "**Let there be light!**"

Let's remind us of one the first transformations presented here, namely:

$$\oplus \Lambda \rightarrow ds^2 \langle i \rangle$$

In such a transformation, we are presenting the passage from the set of all superposed logons to the Riemann space in which imaginary numbers prevail over real numbers (Tachyons have “imaginary masses”, and such a condition interferes on the spacetime surrounding them; and the spacetime that has Tachyons as its elements is supposed to have an enumerable number of points... in other words it’s quantized).

Tachyons are superluminal particles. In order to create the Observable world, in which the Riemann metric is prevailing with real numbers, all logons that became tachyons must slow down and acquire the velocity of light. So, the second transformations appear:

$$ds^2 \langle i \rangle \rightarrow ds^2 \langle r \rangle$$

ds^2 is an infinitesimal region of spacetime. It is composed by three spatial components, and one temporal component. Then, the structure of each point P_u in the Observable Universe is made of the following quadruplet of real numbers:

$$P_u = \langle x, y, z, t \rangle$$

Now consider that, for each point P_u , we can relate the set of Riemannian metrics $ds^2 \langle r \rangle_u$ - the set of all metrics that is extended from P_u to any neighbouring point $P_{u+\hbar}$, in such way that \hbar is a very small number.

Now we can consider the region $ds^2 \langle r \rangle_u$ as a “sphere” whose centre is P_u and radius is equal with \hbar ; **let’s consider \hbar equal with $h/4\pi$** . Then we see the third manifestation of the Name of God as a sphere that encloses every point P_u of the continuum spacetime given by Riemann space:

- a) the region $ds^2 \langle r \rangle_u$ has a perfect unity given by the distance $h/4\pi$;
- b) The volume of $ds^2 \langle r \rangle_u$ is a very small number ε ;
- c) There are 2^{k_0} points inside $ds^2 \langle r \rangle_u$;
- d) the region $ds^2 \langle r \rangle_u$ is an orbital, a region of probability; and we can relate to $ds^2 \langle r \rangle_u$ the density of probability equals with $\psi_{ds^2 \langle r \rangle_u}$

Then, every point of the observable Universe could be seen as surrounded by a “possible tetrahedron of Reuleaux”.

We can explore in more details what is the region $ds^2 \langle r \rangle_u$. Such a region is a region of probability attached to each point of the observable universe: each point has related to it such portion of possibility. We can postulate that this portion occurs by the interference of a quantized Tachyon that disturbs the neighbourhood of a point of spacetime. When a Tachyon slows down and achieve a luminal velocity, it goes from a state at which its velocity was infinity (a Tachyon is a separate logon...) and potential energy (physical energy) is equals to zero, to another state at which its velocity is equals with c . Thus, at velocity equals with c , the energy of a tachyon varies from 0 to ∞ ; and the total amount of energy necessary for transforming a logon into a point of the observable universe, an observable point in continuum of spacetime, is equals with “nullity”:

$$U_u = \infty_u - \infty_u = \Phi$$

And, as seen before, such a potential energy equals with “nullity” introduces into every point of the continuum of points in spacetime a probability $\Psi_{ds^2 \langle r \rangle_u}$ - the “demoniac probability” ...

So, the “granular quantized” Riemannian space of logons and Tachyons (a space in which we have \aleph_0 points) generates in the continuous spacetime, in which we have 2^{\aleph_0} points, the appearance of the probability – an infinitesimal “string” played by the Devil in the infinite and metaphysical symphony of God...

Now we can summarize the following passage of Massimo’s Melli “Geometry of God” in terms of Transreal Math:

"In the beginning" {Genesis 1: 1} - when the will of the King began to take effect, He engraved signs in the celestial sphere {which surrounded him}. Inside the hidden depths a dark flame emanated from the mystery of the *En Sof*, the Infinite, like a fog forming in the formless - enclosed in the circle of that sphere, neither white nor black, neither red nor green, of no possible color. Only after this flame had begun to take on size and measure did it then produce radiant colors. From the deepest center of the flame sprang a fountain from which colors were emitted and spread throughout the Inferior, hidden in the mysterious concealment of *En Sof*. The spring erupted but did not penetrate the ether of the sphere. It could not be recognized until a hidden supernal point shone under the impact of the final fissure {**hokhmah**} (the ideal thought of Creation). Beyond this point nothing can be known. Therefore, it is called *reshit*, principle - the first word {**out of ten**} by which the Universe was created. "

—ZOHAR I.15^a

The Creation from the Name of God, the Logos

At the beginning, a countable number of logons, each one with \aleph_0 **divine instructions**, are superposed in God’s Mind. The set of all superposed logons are called

$$\oplus\Lambda,$$

And that set is situated *before* the creation of spacetime; this metaphysical fact can be translated into Transreal Math by saying that the “position” of such a set in a metaphysical space (God’s Mind) is at “nullity”.

And then the creation begun: the logons are separated from their initial superposed state and “granular spacetime” is generated; such a spacetime is compounded by superluminal particles called *tachyons*, and these tachyons have imaginary masses, a starting infinite velocity and energy equals with zero. We can postulate each Tachyon as a bidimensional structure: one is real, and the other is imaginary. By considering the mass and the “absolute initial velocity”, each tachyon could be represented as:

$$\langle i, \infty \rangle$$

i represents the imaginary mass, and ∞ the infinite velocity.

So, the first step of the creation is the passage from the supernatural set $\oplus\Lambda$ to the “granular” space of tachyons $\langle i, \infty \rangle$, a non-observable space in which “causality” is based on spatial relations instead of spatiotemporal relations. Then, we have:

$$\oplus\Lambda \rightarrow_1 \langle i, \infty \rangle$$

The schematic representation above shows to us the action of God of generating the first appearance of His own intellect. The *countable* and *granular* space of superluminal particles is the first phenomenological manifestation of God’s mind, a *pure topological and metaphysical space*; God’s Mind is a space situated at “nullity”; and from “Nullity” the creation begins.

But now we can consider the passage from tachyons to photons. Each tachyon, with zero energy and infinite velocity, from its imaginary axe, creates a photon by slowing down its velocity and by increasing its energy; by such a way, a new granular spacetime of photons, represented by

$$\langle 0, c \rangle.$$

Where 0 is the mass of the photon, and c is the luminal velocity.

Then, the second phenomenological manifestation of God appears: the world of photons, in which each photon has \aleph_0 **divine instructions**... Thus, the second passage from God's Mind to phenomenological world is the following:

$$\langle i, \infty \rangle \rightarrow_2 \langle 0, c \rangle.$$

Then, from the "Back" of God", the world of tachyons, the "face" of God appears, and the light was made: the world of photons; the God's order *Fiat Lux* finds its correspondent in the realm of physical events.

But how the "body" of God, full of His conscience and divine power, appears? In other words, how the infinite Substance of God originates itself from a "set of countable photons"?

The answer of such a question lies on Cantor's transfinite theory of sets. The continuum spacetime, whose cardinality is 2^{\aleph_0} , comes from the set of \aleph_0 photons, by means of the transfinite operation of exponentiation, namely:

$$\text{Card} \langle ds^2 \rangle = 2^{\aleph_0} = c$$

In the expression above, $\langle ds^2 \rangle$ is the totality of points of the continuum spacetime whose metric ds^2 is the metric of Riemann, namely:

$$ds^2 = g_{\mu\nu} dx^\mu dx^\nu$$

Now the “granular” spacetime of photons becomes a continuum spacetime - the infinite Substance of God - with no gaps.

Then we have the following passage from photons to Riemann spacetime:

$$\langle 0, c \rangle \rightarrow_3 \langle ds^2 \rangle$$

And so, we can consider the “Creation”, in its mathematical-metaphysical” schema, as the following passage, a passage that summarize in one step the three steps mentioned above that describe how God goes from “logons” in His Mind to the continuous Riemannian spacetime, the expression of His infinity Substance:

$$\oplus \Lambda \rightarrow \langle ds^2 \rangle$$

In the schema above, we have the “metaphysical” transformation of God’s Mind into the observable universe. The starting point of such a passage is the point

$$\langle 0, 0, 0, 0 \rangle,$$

The absolute beginning of the universe: the “God’s eye” from which the Divine intelligence see the entire universe and knows with certainty every future path of His creation; the point above is intersection of the “conscience” of God and His infinite Substance – the Cartesian “pineal gland” that connects God’s Mind and His infinite body. The local energy that concentrates in this point is infinity, and such fact reveals the absolute infinite power of God’s Mind and Will.

For every point P of the continuous Riemann space different than the absolute beginning, the “metaphysical” potential energy, as said before, is nullity. Let’s consider that we take into account every point whose distance from P is **less than $h/4\pi$** . In this way, we have a sphere surrounding every point of Riemann space whose radius is **less than $h/4\pi$** . Such a sphere is an orbital, a region of probability, and it is

caused by the potential energy equals with nullity at the point ***P***: **the potential energy equal with “nullity” introduces into the observable Universe a state of superposition that could be seen as the totality of all physical possibilities given at the same time.** According to “God’s eye”, such region of probability is a region of certainty, since it coincides with the initial and metaphysical state of superposition from which all logons were separated to create the world;

for the Human’s eye, such certainty is not possible: human intelligence cannot immediately perceive the Universe in an exhaustive manner; the human intelligence must operate with “concepts and mathematical laws”, and for this reason the probability, an epistemic notion, enters into the Universe: probability, as an epistemic notion, approximates human to his limits, to his “demons” ...

At the centre of every sphere of probability of the Riemann continuous space, we can insert \aleph_0 divine instructions: the laws that govern the entire Universe from such sphere of probability. This centre could be identified as the centre of a Tetrahedron of Reuleaux whose **distance between its vertices is $h/4\pi$**

Then, at every point of the observable universe, the name of God

YHWH

and its “Theological” Tetrahedron of Reuleaux – the Theological quadruplet

$\langle 1, 0, \aleph_0, \Phi \rangle$

is reflected upon each point of the observable Universe as the Tetrahedron of Reuleaux inscribed in every sphere of probability that surround every point of the continuum of the observable Universe; the quadruplet related to such Tetrahedron, the “phenomenological quadruplet”, is the following:

$$\langle h/4\pi, \varepsilon, 2^{N_0}, \psi_\alpha \rangle,$$

Such that:

- 1) $h/4\pi$: the distance between the vertices of the Tetrahedron;
- 2) ε : the volume of the Tetrahedron;
- 3) 2^{N_0} : the cardinality of the points inside the Tetrahedron;
- 4) ψ_α : the probability “inside” the sphere.

Now we can ask about the meaning of the probability “inside” the sphere. What is its meaning? Such a probability represents that all possibilities in the physical world, that are given at every point of the Universe by a set of an infinite and countable divine instructions, are condensed at each point as an image of the Omniscience of God’s Mind: at each point of the Universe, there is the mirroring of “God’s Eye”, and such mirroring is the probability “inside” the sphere: each “infinitesimal” region of probability gives to the entire Universe the notion of “Liberty”. At each point of the Universe, the mixture of “Necessity/Chaos” is transformed into “Certainty/Liberty”. The only region of the physical world where all is certainty is the initial zero, where all things are determined. At all other points, the substance of God is surrounded by “little smokes of liberty”, and from such a liberty the Universe moves itself: the laws of Physics based on probability. Contrary to Peter Hoffman in his book “God’s gears”, Melli assumes that the pair Certainty/ Liberty is the fundamental dialectical “gears” that rules over the Universe:

“I agree perfectly with Hoffmann that they are always Chaos & Necessity (a roll of the dice bent to the laws of physics) to dictate the rules of what is and what is not. In other words, even more direct: the chaotic - therefore "random" - movement of molecules, combined with the need given by physics, is all that is needed and is necessary to explain the existent. The rest is unnecessary added value, pure science

fiction, abstract theorem for its own sake?

On this last point I do not completely agree.

I agree with Hoffmann on everything he says and I must admit that I learned a great deal from him, reading his book. The only point in which I allow myself not to agree with him is the concept of space-time, which is not an inert substance for me, but the "Substance of God". For me the laws of physics, mathematics and chemistry are the Laws of God and mine is a "vitalist" hypothesis which states that in practice: everything that animates living matter giving it a purpose, would arise from a "substance " fine, invisible, divine, (the ether of Nahmanides and Spinoza). I am a Pantheist, follower of Spinoza and Einstein ... and for me Chaos & Necessity are laws of God.

The difference between me and Hoffmann is therefore perhaps only a detail: while for Hoffmann everything starts from Nothing and a Divine Mind is not necessary to the two fundamental ingredients of his theory that are Chaos & Necessity, for me the Initial Zero is not nothing, but Probability 1, i.e. Certainty. In fact, for years I have tried to explain that that initial Zero contained within itself all the Potential to build the Future" (MELLI, p.59)

Some considerations must be made on the Tetrahedra of Reuleaux that exist at every point of the Observable Universe. They are the "divine fire" from which all things have come. We can even say that "every tetrahedron of Reuleaux" is a "divine factory" from which material particles (bradyons) emerge. At the centre of each Tetrahedron of Reuleaux, there are \aleph_0 instructions (in this way, the two attributes of Spinoza's Substance, namely "Extension" and "Thought" are connected), and by means of such instructions, in a *non-deterministic way*, the particles *dialectically* erupt from the Tetrahedron; and then a distance greater than $h/4\pi$ is metaphysically "broken" by the particle. But for breaking such a distance, the distance between the vertices of the Tetrahedron, an infinite amount of indeterminacy or "liberty" must be observed insight the Tetrahedron: if a creative event P has certainty inside the Tetrahedron and can go out from the Tetrahedron (if P can exceeds the distance $h/4\pi$), another event P^* must remain completely indeterminate inside the Tetrahedron. And then we have the "metaphysical" foundation of Heisenberg's Principle of Uncertainty expressed in Transreal Mathematics – a situation that say that for something that comes out of the

Tetrahedron with precision, another one must remain “locked” inside the Tetrahedron with an infinite indeterminacy; and the “metaphysical rectangle” formed by P and P^* must have an area *not smaller* than $h/4\pi$. Namely:

$$P \text{ times } P^* \not\leq h/4\pi$$

If we consider P equal with 0 and P^* equal with ∞ , then we have:

$$0 \text{ times } \infty \not\leq h/4\pi$$

In Transreal Mathematics, the product $0 \cdot \infty$ is equals with Nullity, and the inequality above becomes the assertion:

$$0 \text{ times } \infty = \Phi \not\leq h/4\pi$$

A metaphysical mathematical statement that reinforces that all thing comes from “God’s mind” and His logons that are in superposed state at Nullity, the point where God’s Mind rests...

According to Melli:

“Everything that exists in space-time has a geometry, so if God exists and is the Substance of Spinoza, it must have a geometry ...

If everything was created by the Substance of Spinoza, which is All in All and is also Thought or **Logos** (the mind of God) and Infinite Extension, the "Logon" should also exist, since it is the atom of the Mind of God, whose description is the following:

"The Logon is a geometric point endowed with existence and probability."

Thus, the logon is a point and not a number. (6)

(6) Being a point gives the logon its certainty of existence and its probability 1 gives the logon a central place in the Unity of God.

“How is it possible that all Logons are all here instead of there? Every point of the infinite Substance is its center, because it is an infinite distance from the circumference (this is the explanation of God's Ubiquity)” (MELLI)

Each infinitesimal Tetrahedron in the Universe operates as “infinitesimal God’s Mind”: From its center the creation occurs, revealing the face of God – what comes out from such a center, and showing the back of God (the divine silence) – what remains locked in the Tetrahedron with infinite indeterminacy. Besides that, at the centre of the Tetrahedron, a set of \aleph_0 divine instructions – or divine *laws*, or divine *poems*... say how to act freely to create the material particles: probability laws that govern the world, and such a set of instructions is analogous to God’s Mind

$\oplus\Lambda,$

a set of \aleph_0 superposed logons... Then, each Tetrahedron of Reuleaux scattered over a continuum of points in Riemann space gives to us the Image of “**God’s Ubiquity**”.

And what about the “divine Logic”? What kind of logic we must postulate to describe the behaviour of the Logic of God? Initially, we must consider that the Logic of God operates with “absolute Truth” and “absolute Falsehood”, and such notions are metaphysically grounded on the ontological notions of “**Being**” and “**Not-Being**”.

In fact, the absolute Being of God is His Substance that is Infinity (∞). Then, the Not-Being will be represented by the total absence of Being, and the best candidate to this

is the Transreal Number ($-\infty$). Thus, the absolute Truth in God's Mind is identified with the Infinity, and the absolute falsehood with Minus Infinite.

A logic inspired in God, if transformed into Arithmetic, will not represent True and False by 1 and 0 respectively, but it will consider such a semantical value as ∞ and $-\infty$; and all logical theorems and propositions must be expressed in terms of these Transreal Numbers. But in God's Logic, it must have a number that represents the "absolute Liberty that reigns in all points of the Universe", and such number is Nullity (Φ). In fact, as said before, at every point of the Universe there is a metaphysical potential energy that reveals the passage from "being in God's Mind" (Logons superposed") to "Being outside God's Mind" (The continuum of Riemann Space), and such process demands a total energy, at each point of the Universe, equals with:

$$U_{\alpha} = \infty - \infty = \Phi$$

And the energy, a degenerated kind of superposed set of events, inserts into the world the "probability", the mathematical concept that tries to translate into physical world the metaphysical notion of "Liberty"; then Nullity will be the "absolute mathematical expression" of the Liberty, of what cannot be decided by means of precise logical procedures; then, at each point of the Universe, a lot of propositions analogous to Gödel's theorem could be discovered, and **Nullity is the number of the "Undecidable"**.

Then, God's Logic operates is an absolute Three value Logic:

<True, False, Undecidable>

And such Three valued Logic has the following Transreal translation:

$$\langle \infty, -\infty, \Phi \rangle$$

And the Trinity above shows us the triplet

<Being, Not-Being, Liberty>

that is present in every portion of the Creation and the Human activity. According to Melli:

"The Midrash-Konen, that is the Study of Creation attributed to Rabbi Isaaq ha-Zaqen, that is Isaac the Old, says: " The Holy of Holies created men and, against them, He created demons ... He created beasts and the animals and, against them He created the Bears, the Lions and the Leopards ... and He created the pure birds and, against them, he created the Eagle and the Vulture. "

Based on this, this passage could be interpreted as follows: God would have created tiger-mosquitoes, to make us understand the beauty of butterflies and the usefulness of bees or that of ladybugs that feed on aphids, cleaning up the plants of harmful parasites. Everything has its opposite to strengthen its beauty in our eyes. A kind of Yin and Yang for which everything was created together with its opposite, without which it could not be understood?

The Kabbalist Leon did not like the solution that God did not exist (God avoids this for us and frees us!) because he had shown His Divine existence with his studies.

Then?

Leon thought that God had resorted to a stratagem, a **Demiurge**, a kind of neutral mechanism between Man and God, **Probability**, that is, the Psi (Ψ) function that allowed God to make events happen, keeping Man's free will.

In other words, if things went wrong, it was their business (that is, of the living beings) and not God's fault, but it was the fault of the Demiurge.

That Demiurge was mathematics that mathematicians liked very much, because even if it wasn't good, at least it was fair and impartial.

But it was undeniable that there was also goodness and good feelings on Earth. The love of mothers of all kinds for their children and altruism and solidarity towards the poor, the weak and the sick. Then math didn't explain all that was in the world. Rabbi Hillel and Jesus, each on his own, had said that the synthesis of the Law was: ***love your neighbor as yourself***' (Melli).

And what about the role of the Devil in the Universe? Devil is a the Lord of the realm of **“Not-Being”**, and his role is disturbing the creation by introduction illusions and “metaphysical silliness” whose aim is introducing **“not-being”** into the order of creation; then, because of the introduction of the absolute “Liberty” Φ into every point of the Universe, such a potential energy introduces an infinite “degenerate” set of superposed events at each point of the Universe, and this set contains all possibilities that come from the set \aleph_0 of free divine instructions that rules over such a point, including those instructions that can generate “phantasies” or “illusions”. This kind of things have “negative probability” ψ^*_α and, superposed with such events that have positive probability ψ_α , gives to us events that have probability equals with zero ψ^0_α . Namely:

$$\psi_\alpha \oplus \psi^*_\alpha = \psi^0_\alpha$$

And the expression above, a metaphysical law of probability, shows that the set ψ_α results from the “separation” of such a set from the sets ψ^0_α and ψ^*_α **by means the metaphysical inverse operation of \oplus^{-1} applied to ψ^0_α and ψ^*_α** (the free creation of positive probability from its “anathema”).

$$\psi_\alpha = \oplus^{-1} (\psi^0_\alpha, \psi^*_\alpha)$$

And the work is “already” done: an attempt to translate the main ideas of Melli’s work into a narrative based on Transreal Mathematics...



The Geometry of God and Hylomorphic Numbers – a little essay inspired by Massimo Melli's insights.

Walter Gomide

1) THE CREATION OF THE UNIVERSE: FROM LOGONS TO RIEMMAN SPACE.

Before creating spacetime, God created an infinite number of separate monads, a denumerable infinite of monads. According to Cantor's theory, a denumerable infinite is a countable transfinite

number, and such number is identified as \aleph_0 ; each individual monad had a name; and each monad was a spiritual entity in God's Mind.

Disposing of such an infinite amount of individual monads, God could organize the set of monads in the form of separate clusters, and each cluster was a possible world. Because God's Mind is an infinite continuum that doesn't admit voids, God had at His disposal, according to Cantor's theory, an infinite continuum

$$2^{\aleph_0} = c$$

of possible worlds. These possible worlds are dimensionless points in God's Mind, i.e. in the ***Topological space that lies in God's Mind – a continuum without voids, a spiritual space from which God chooses one world that will become the actual world, the physical spacetime.***

God has chosen the world ***W*** to become the physical world; and now this world, which is a cluster – a sequence of monads - , turns out to be a denumerable set of tetrahedra of Reuleaux, made up of logons, massless and dimensionless particles with potential energy – forming together an infinite amount of potential energy – that are arranged in a superpositional way: because their size zero does not leave any gaps between consecutive logons , the entire set of logons is structured as a single point in God's Mind in which each logon lies in a "vertical stack", as a superposition set. The following pictoric manner of presenting sets will be useful to explain the difference between "vertically stacked set" and "horizontally lined set" – in superposition sequence:

Let's consider the possible world ***W*** – a "horizontal" sequence of monads ***m_i***:

$$W = \{m_1, m_2, m_3, \dots \}$$

The set of logons ***L***, in which each monad ***m_i*** is transformed into a logon ***l_i***, is a "vertical set" – a set in superposition:

$$L = \begin{matrix} l_1 \\ l_2 \\ l_3 \\ \vdots \end{matrix}$$

What is the difference between a "horizontal set" and a "vertical set"? Basically speaking, a horizontal set is an aggregate of different objects, a set that contains *elements*. On the other hand,

a vertical set is **a complex object**, not a real set: a vertical set has no elements, but has components.

Then, we can not say that

$l_1 \in L$ (the element l_1 belongs to L), but we can say that

$l_1 * L$ (the object l_1 is a part or a component of L)

Note: This concept is very clever and easy to understand, considering that a Monad (according to Leibniz) has size zero, like a logon (according to Melli), therefore there is no epsilon distance between monads and they stack up vertically in the same point, separated by a vertical distance zero. If they are horizontally differentiated, it means that there is between them an epsilon (the distance of Plank), separating them as different objects.

The concept of “vertical set” is an attempt to give a better physical or geometrical meaning to the analytical and abstract meaning that sets have; a “vertical set” is more a configuration than a set. For instance, we can present the “horizontal” set

$$A = \{a, b, c\}$$

as the following “vertical set”, a **diagonalized configuration**:

$$A = \begin{array}{ccc} & a & \\ & & b \\ & & & c \end{array}$$

Note: By inserting both vertical and horizontal epsilons between the objects.

However, we can say that

$$L = \begin{array}{c} l_1 \\ l_2 \\ l_3 \\ \vdots \end{array}$$

gives to us simultaneously **all possible geometrical configurations of the “horizontal” set W (potentially)**; and the quantity of such configurations is c , the cardinal number of the continuum.

In God’s Mind, the “vertical” set of Logons is a potential energy, the beginning of the passage of a Transcendent God to an Immanent God: the logons are the embryo from which the physical universe, the infinite substance of God, has its start; and the point of the Universe at which the v-

set (“v” of vertical) of logons is absolutely situated is “Nullity”: nullity is a point from which God sustains the Universe in a metaphysical way...

Let’s call **L** by

$$\oplus W$$

Therefore, **L** is the superposition of all possible configurations of the monads - $\oplus W$ – that lies at Nullity: at Nullity, God begins the transformation of His infinite substance (His body) into a physical reality!!

And now the **v-set** of logons is a **continuous** set by which the physical Universe could be structured as a vector space and as a metric space. Now begins the first metaphysical action of God in His passage from God’s Mind into a physical infinite Substance:

the v-set $\oplus W$ is transformed into a continuous set T , the second step towards the physical Universe!

The first metaphysical action of God is the following passage:

$$\oplus W > T.$$

In the expression. above, “> ” means a metaphysical action, a metaphysical passage from the logons to the continuous set **T (the topological space)**: from $\oplus W$, a continuous number of configurations appears in the form of a continuous number of points, and the topological space, from which the physical space time will rise, emerges.

Now God’s substance has the form of an infinite topological space; and He must now give to it the aspect of a vector space where physical phenomena occur. Then a new metaphysical transformation takes place: the passage from the topological space **T** to a spinorial space **S**: spinorial space is the fundamental vector space whose componentes can be combined for acquiring quadridimensional vector space with metric; spinorial space is the space from which emerge tensors, vectors as scalars defined in four-dimensional vector space; spinorial space are outside from physical quadridimensional physical space, and act like the metaphysical origin of the structured physical spacetime. Then we have the following sequence of metaphysical causation that goes from God’s Mind to the substance of God as a space where spinors lie:

$$W > \oplus W > T > S$$

From spinorial space, we can go to Riemann space \mathbf{R} , a quadridimensional space where we have the presence of elementar particles like tachyons, photons and others. In Riemman space, we have also gravitational phenomena described by Einstein equation, and at the “divine moment” in which Riemann space emerges, the substance of God is completely transformed into the entire physical Universe; the zero point of such space is the “**eye of God**”, the region where all phenomena are ruled by deterministic rules.

In the other points \mathbf{p} of Riemann space there is a surrounding volume that are the “Tetrahedra of Reuleaux”, a region of probability that comes from the configurations that exist in the initial v-set \mathbf{L} of logons: each point \mathbf{p} has a potential energy equal with nullity

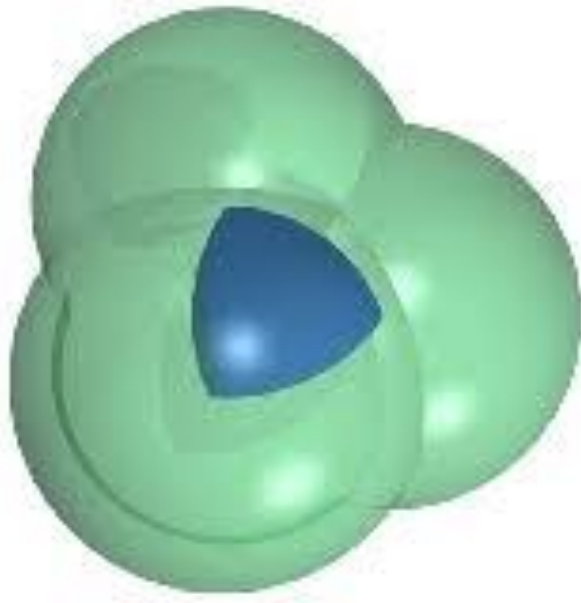
$$\Phi = \infty - \infty$$

and such potential energy – a degenerated energy – gives to all point of Riemann space a surrounding tetrahedral region of probablity that does not exist at the point $\mathbf{0} = \langle \mathbf{0}, \mathbf{0}, \mathbf{0}, \mathbf{0} \rangle$.

In every point of this region, the Tetrahedron of Reuleaux, a pair of conjugate quantities \mathbf{Q} and \mathbf{Q}' exists in such way that:

If \mathbf{Q} is completely determined at \mathbf{p} ($\Delta \mathbf{Q} = 0$), then \mathbf{Q}' is completely undetermined at \mathbf{p} ($\Delta \mathbf{Q}' = \infty$), and vice-versa (Heisenberg Principle of Uncertainty)

The conditionals above are the origin of Heisenberg principle, and it is the key of entering into the notion of Hylomorphic Numbers.



THE MISTERIOUS TETRAHEDRON OF REULEAUX: INSIDE THE GREEN VOLUME, A POINT P OF RIEMANN SPACE IS SURROUNDED BY A PROBABILITY REGION PAINTED IN BLUE.

Note: The passage from a continuous space, that explains gravity foreseen by the Theory of Relativity, to a discontinuous probabilistic space, foreseen by quantum mechanics, occurs within a spacetime filled with infinite tetrahedra of Reuleaux.

1) HYLOMORPHIC NUMBERS (in progress)

Now we can speculate what happens in the interior of each tetrahedron of Reuleaux. Let us suppose we have two conjugate quantities Q and Q' (such quantities could be, for instance, the momentum and the position of a system). According to Heisenberg principle, as stated above, the complete determinacy of one of them implies the total indeterminacy of the other. We can explain this by considering the following train of thoughts: at each point P of Riemman space, except the point $\mathbf{0} = \langle \mathbf{0,0,0,0} \rangle$, there is a “surrounding cloud of probability”, and a physical quantity inside this region, namely the quantity Q is completely undetermined: the value of ΔQ in this “cloud” is infinity:

$$\Delta Q = \infty$$

The quantity Q is spread through the cloud, and its conjugate quantity Q' is completely determined inside that cloud: at the point P , the center of this “tetrahedral cloud”, the value of Q' is completely determined - $\Delta Q' = 0$.

Then, we have the Transreal version of Heisenberg principle of uncertainty:

$$\Delta Q \times \Delta Q' \leq h/4\pi$$

Since

$$\infty \times 0 = \Phi \leq h/4\pi$$

In general, we can say that at every point of the Universe, there is a pair of numbers δ and δ' that measures the degree of indeterminacy of two conjugate quantities, such that

$\delta' = 1/\delta$ and

$$\delta \times \delta' \leq h/4\pi$$

The numbers δ and δ' are called “hylomorphic numbers”¹, i.e. numbers that represent both *matter and form* (according to Aristotle) and the coefficient $\delta \times \delta'$ is called the “hylomorphic coefficient of δ and δ' ”: this product “measures” the degree of unity of the combined action of two conjugate quantities. Their values could be 1 or Φ .

We can infer that the product $\delta \times \delta'$ is the “metaphysical foundation” of each instance of Heisenberg Uncertainty Principle.

2) GALILEO' STATEMENT REVISITED.

In 1623, in his work “The Essayer”, Galileo Galilei has stated that the “book of Nature was written in mathematical characters”. From this statement, a question arises:

In what mathematical characters is the Book of Nature written?

The answer for that question is always the same regarding the history of Physics: the real numbers furnish us the vocabulary of Nature.

¹ The name hylomorphic number is inspired by the concept of hylomorphic functions that was introduced by the American Engineer Anton Van der Mude

In “The Geometry of God”, Melli’s insight on the creation suggests a new answer: transreal numbers, a domain of numbers created by the English computer scientist James Anderson around 1997, are the vocabulary of Nature.

According to the theory of transreal numbers, there are three new numbers that could be added to the real Numbers, namely: ∞ , $-\infty$ and Φ . And the introduction of these numbers implies a new topology, a new conception of metric space, and a new way of seeing the Nature, if we admitt that the book of Nature is written in Transreal numbers.

The Nature structured by Transreal Numbers has, as its place of physical phenomena, a quadridimensional Riemman space, and has also a point at Nullity that is ubiquitous: “above” each point P of Riemman space lies at point at Nullity from which metaphysical causation constantly acts over the Riemman space. Thus, a generic point of a Transreal space that structures Nature has the following aspect:

$$P = \langle x, y, z, t, \Phi \rangle$$

We can have an image of how is a space in which Nullity is situated projectively in the bidimensional case, namely the transreal circle:

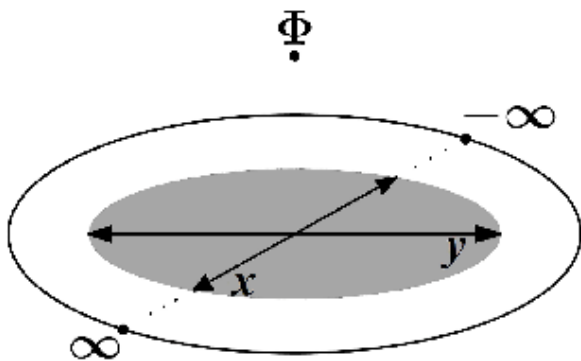


Fig. 1. The transreal numbers, being the extended x -axis

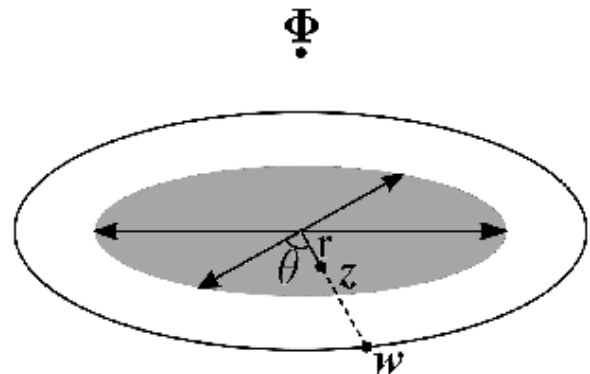


Fig. 2. Entire transcomplex plane described by polar co-ordinates

Note: The position of Φ is located vertically above the origin 0 and outside of the plane.

So we can say that Nature, according to Transreal Numbers, is a projective space, and the point at Nullity introduces other causalities than the mechanical ones.

3) A NEW CONCEPT OF HUMAN'S MIND

Melli's insight on God's Mind can be extended to conceive a very interesting perspective on human's mind.

In fact, the idea that in God's mind, at the very beginning of the creation, there is a denumerable vertical set of logons that will be transformed into tachions when the infinite substance of God becomes Riemman metric space can be used analogically to conceive how human's mind or conscience works. The idea, presented in the work of the physicist Eccles, is based on the concept of *psycheons*, imaterial particles that operate in a "metaphysical" way over the brain and its neural nets; from this causation, the acts of the conscience, as well as the memory, would become explainable: psycheons would behave as tachions in a superluminal way, and from such behaviour a interesting causal relation between psycheons (that act like tachyons) and the physical structure of the brain would occur.

Now we can offer a schema of causation between the vertical set of psycheons

$$P = \begin{matrix} p_1 \\ p_2 \\ p_3 \\ \vdots \end{matrix}$$

and the material structure **B** of the brain. This structure **B**, in this schema, will be the analogical correspondent of the Riemman space **R** in God's schema.

Then we have the following sequence of metaphysical causation:

$$P > T_p > S_p > B$$

In the schema above, T_p and S_p are, respectively, a topological space composed by points that represent possible configurations of psycheons, S_p the spnorial space from which the brain emerges as spacetime framework.

This schema is completely analagous to God's Mind schema:

$$\oplus W \succ T \succ S \succ R$$

Thus, an interesting subject of research could be opened by Melli's Geometry of God; by starting from the schema above, how is the similarity between God's Mind and human's mind seen as Eccle's psycheon causality?

The Bible clearly said: B'tzelem Elohim (in the image of God) was created Man.

A theme for the future....

Back cover



Massimo Melli, Pantheist and fan of physics and mathematical logic and admirer of Spinoza and Einstein, is the author of this book, which tries to explain to your grandmother the geometry of God.

After publishing the book: *The Talmud of Scicli* that you can download for free from the Web, or from Academia Edu. and: *The Adventures of the Kabbalist Leon*, which can be bought from Aletti Editore, the Kabbalist Leon, the hero of these books, based himself on the wisdom of the Jewish Kabbalah and of the philosopher Baruch Spinoza to try to describe: *The Geometry of God*. The result is a series of ironic and humorous theorems and geometric essays so easy to understand, that you could even explain them to your mother-in-law.

The conclusion of the Cabalist Leon is:

Everything that exists in space-time has a geometry, so if God exists and is the Substance of Spinoza, He must have a geometry ... You will then ask: but does God have a Mind? Certainly, His Mind is all that exists and He thinks geometrically. And does he also have a conscience? Certainly, His Consciousness is the Unity of all that

exists.

But at the end of the book, after analyzing the limits of human logic, the Kabbalist writes, quoting his friend the philosopher Antonio Thellung:

"I recognize that speaking of the divine dimension (geometry?) while being well aware of not being able to know anything about it, is a beautiful claim! As Meister Eckhart (German theologian of 1260-1328) said, if I could understand God, that wouldn't be God!



Walter Gomide

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Professor of Federal University of Mato Grosso, UFMT Brazil. Interested in Logic, Philosophy of Science, Metaphysics and especially on Foundations of Mathematics. Nowadays is studying how to apply transfinite and transreal numbers into Logic and Philosophy. Author of several publications in the field of Theology, Transreal Mathematics and Logic.