# IBOZOO UU

## INTRODUCTION

According to information provided by the Ummites, the reality we know and call "world" in philosophy and universe or cosmos in physical terminology is actually a phantom created by our mind. There is, indeed, "something" AIOODII that is the ultimate substrate from which the psychological perception of what we interpret as objects that make up the world or universe derives. In Ummite logic, these objects that our consciousness handles and that seem to be "external" to it (by external, we include our own physical body) and partially independent of it, are **AIOOYA,** physical reality, "Truth." The distinctive feature of what AIOOYA is that it is supported by factors or elements that are the basic constituents of reality (at least for the current development of Ummite consciousness) and which they call IBOZOO UU. An animal, a rock, but also a distance or a period of time are nothing more than a network of IBOZOO UU configured in a certain way. For the Ummites, AIOOYA, the things in whose fabric IBOZOO UU intervenes, "exist" and are accessible to our consciousness through our senses.

When information from these objects enters consciousness through the sensory channels, this information about the objects is encoded in a format also made of I.U., which can be manipulated by the IBOZOO UU network, or "mind," and although its source or external reference AIOOYAA (which exists "outside" of consciousness, in our universe), it integrates and interacts with other "information objects" that are also handled by consciousness and whose referents have different ontological and/or logical status or value. Thus:

1) that which is the fruit of our eidetic capacity (that produced by the collaboration of our mental processes together with what the Ummites identify as the BUAWAA capacity to produce polymorphic and contradictory ideas) and which also has no correlate in the physical or metaphysical world. That is, that which does not exist par excellence **AIOOYEEDOO** "False," such as lies (intentional or not), erroneous theories, inventions, and fabrications (literary or insignificant), etc.

2) Other entities that may seem similar to the above, as they also have no physical counterpart and cannot be expressed by an IBOZOO UU network in a universe accessible to our senses, but which nevertheless have a different ontological status as they refer to or can be correlated with "non-existent" dimensionless entities, but simultaneously "NOT false-or-devoid-of-all-reality" such as the soul, collective consciousness, emotions, moral laws, "patterns of understanding" of reality, etc., which are **AIOOYA AMMIE.** As the Ummites point out several times, our language lacks a logical term other than "True" or "False" that encompasses these objects, which leads to endless and fruitless discussions among us about, for example, the existence of the soul: "Does the soul exist?"←→ True or False?←→ Irresolvable within our logic.

To conclude this introduction, I would like to remind you that there is a fourth ontological (or logical) term, AIOOYAAU, which I believe (with many doubts) refers to logical) term, **AIOOYAAU**, which I believe (with many doubts) refers to the set of ontological categories experienced by other intelligent beings, EESEOEMII, existing in other WAAM and radically different in their cognitive processes from us, OEMMII, and/or to the ultimate reality, AAIODI (unknowable to EESEOEMMI), which sustains it.

**TEXT 0.-** http://www.ummo-sciences.org/fr/D75-D81.htm Let's imagine other "thinking" beings different from us (EESEEOEMI). We are not referring to beings with a different physiological structure

, but to "I's" whose mental schemas have a different configuration. Without a doubt, "these beings" will attempt to THINK-THE-COSMOS (of course, the process of "THINKING" should not be interpreted in an anthropomorphic sense), and "in doing so" they will modify its BEING ((MR) the being of WAAM). Thus, their WAAM WILL NOT BE our WAAM [Note: THIS IS IMPORTANT; we are not saying that the WAAM will not be OBSERVED or FELT or PERCEIVED or SCHEMATIZED in different ways—this is obvious. However, we are saying that the image of this Cosmos must be different, just as an optical image captured by a dipterous insect may be different from that perceived by the human retina).

It is not only the fact that the image of this WAAM is distinct due to the intervention of mental processes that are configured differently from ours. It is that the very BEING, the very ESSENCE of the WAAM will be disturbed. This relativity of BEING, this versatility of "BEING," is reflected in **our logic** by what we call **AAIODI AYUU ((MR) AIOOYAAU ??) [*L]** (range or network of forms of BEING).

We OEMMII, intelligent beings of this WAAM, with our conception of the world based on the IBOZOO UU (or some other similar theory) could consistently describe the universe (and therefore create it, since our consciousness, when explaining "things," generates the world from AIOODII). This explanation of "what-is" can lead us (as it does the Ummites) to postulate a multiplanar universe in which on each "plane" or WAAM-UWAAM the physical laws are different, starting with the speed of light. This conception of AIOODII transmuted into IBOZOO UU can lead us to describe each of these WAAM-UWAAM mathematically and scientifically. This theory could go so far as to describe the rules of formation of self-aware negentropic entities (EESEOEMMII) inhabiting those other WAAMs, and ultimately we (the Ummites or the OEMMII of this WAAM in general) could encounter those radically different EESEOEMMII. The paradox (apparent paradox), according to the Ummites, is that these other OEMMII from other WAAM-UWAAM, when "thinking" about the world, when reflecting on AAIOODII, will cause it to reconfigure itself to conform to their thought processes, adopting ontological forms radically different from ours, AIOYAAU. Thus, an advanced race of EESEEOEMMII from another WAAM-UWAAM will experience this not as being made up of space, mass, charges, etc. They will not even "think" about the world in words or concepts, but will do so from a "mental substrate of consciousness" that is mysterious to us. That BEING-N will be able to enunciate a theory (it is anthropocentric or OEMMII-centric to speak of "theory," but "for lack of a better term...") that explains what it "sees" and "feels." That "theory" will NOT be based on IBOZOO UU, of course, but it could be fully consistent with its consciousness-experience of "reality" and could perfectly explain its "world" and, incidentally, others that contain strange forms of consciousness. Some of these ideas could explain to them the appearance and origin of some BE-Ks that could be ourselves -OEMMII-. Thus, we would have an AIOODII (WAAM-WAAM for the EESSEOEMMII of our universe) in which the infinite types of "thinking beings" that it can give rise to (the AIIOODII), based on the information provided by WOA, are capable of explaining themselves to each other and to their respective worlds through complex, disjointed, and incommunicable eidetic images (I believe that this ontological range of forms of being, based on AAIODII, is what they call AIOOYAAU), with consistency only "inward," toward the type of "mind" that created it.

## The IBOZSOO UHU

The first thing that strikes you when they talk about these basic components of reality is that they are presented as prior to space and time. Space emerges as a psychological composition produced within networks linked to the IBOZOO UU themselves (I am referring to those that make up human brains) with

the ability to interpret angular differences between other different IBOZOO UU as "distance." In the same way, these networks of "self-aware" IBOZOO UU can interpret other angular differences as time, mass, gravitational field, electric charge, magnetic moment, strong force, spin, energy, etc. But what are these mysterious factors like, and how do they operate?

An IBOZOO UU can be conceived, we are told, as a set of orthogonal orientations. The orientations or axes do not intersect because they are not straight lines in space. IBOZOO UU **are not in space (**neither three-dimensional nor ten-dimensional) and therefore it is incorrect to imagine them as "hedgehogs"; they are like a set of orthogonal oriented axes (TEXT 2). In another passage, we are told that IBOZOO UU could be presented as oriented polyhedra (TEXT 1), although this is not developed further as it is considered that it could cause confusion. However, the fact that this image is suggested has made me think.

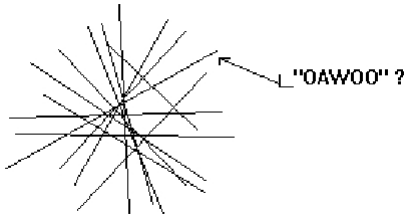
**TEXT 1.- http://www.ummo-sciences.org/fr/D105-1.htm** Perhaps the example would have been clearer if, instead of cards, we had used multi-faced polyhedrons, which would better represent IBOZOO UU, but this model would have lost its simplicity of explanation.

This image is indeed a good one. A regular hexahedron could represent an IBOZOO UU with three orthogonal axes. Each pair of opposite faces of the hexahedron would express a direction in which the IBOZOO UU "looks," that is, perpendicular to them, and if we assume that the hexahedron is infinitely small until it disappears, we will have the image of an entity, a "nothingness," with three oriented directions. It would suffice (if we were capable of doing so) to imagine a polyhedron so infinitesimal that it becomes non-existent, with twenty faces, each pair of opposite/parallel faces being perpendicular to all the others, to have an image of a ten-dimensionally oriented entity, alternative to that of the set of oriented and orthogonal axes. Perhaps with this image we have created a new problem, since we can imagine the IBOZOO UU as a point, or as an infinitesimal volume (polyhedron), which presupposes a space in which to locate it, but ultimately, they themselves tell us that it is not easy for our minds to approach the genuine concept of IBOZOO UU since they have been educated incorrectly (ah, the psychoviruses!). We will need great mental discipline to avoid the errors already pointed out. As a pedagogical method, after warning us of its inadequacy, they themselves do not hesitate to use the image of a bundle of axes.

**TEXT 2.- http://www.ummo-sciences.org/fr/D59-3.htm** By provisionally defining IBOZOO as an elementary entity, albeit differentiated, composed of a bundle of orthogonal axes that cannot intersect each other, we have precisely introduced (albeit for educational purposes) a concept that you must reject a priori: that of the AXIS, expressed with a word that is very familiar on Earth. If you associate our word OAWOO ("AXIS" or DIRECTION) with a straight line, we are back to square one, since you will have understood nothing of our previous explanations.

Obviously, there is a serious obstacle here because we are talking about different mathematical languages. Languages which, by definition (as we noted in a previous document), are conditioned by a set of psychological concepts that differ between you and us. When, from the earliest stages of childhood, the UUGEEYIE is educated within defined and narrow logical molds and feels respect for unreal mathematical postulates, it will be very difficult, if not impossible, to educate their mental mechanisms to dissociate illusory images related to their mode of perception.

For this reason, if we invite those unfamiliar with mathematics to imagine the IBOZOO UU *[L]* as a series of axes (indefinite, ideal straight lines)




we invite MATHEMATICIANS to reconsider that our concept of OAWOO, although implying a "DIRECTION," can never be assimilated to real or ideal axes or lines.

Once the IBOZOO UU has been provisionally defined as a bundle of oriented axes, the ummites tell us that the "magnitudes" that our mind perceives (or conceives) from the information provided by our senses ultimately come from the angular differences between the orientations of different IBOZOO UUs. The Ummites refer to the orientations (I prefer this term to oriented axes) of an IBOZOO UU as OAWOO, and the angle formed by two orientations of two different IBOZOO UUs as IOAWOO. It is this angular difference between the OAWOO of different IBOZOO UU that is of transcendental importance to them in the configuration of worlds or universes, since **it is only in these differences, in these angles, that information can be encoded.**

A first requirement for working with IBOZOO UU is to be able to represent them mathematically. The Ummites warn us that in order to work on the angular relationships between two different IBOZOO UU, we must not look for any reference system external to them, which is logical since, as we have said, IBOZOO UU are not in any specific place, so it makes no sense to talk about them as being spatially located. It is enough, they tell us, to take any one of them as a reference element. To proceed step by step, let us first see how we would mathematically represent an IBOZOO UU with three orthogonal orientations, which we will call IU(3D). Let us represent an IBOZOO UU (**red)** with respect to any other (**black)** taken as a reference. For convenience, I assume in Figure 2 that the two IBOZOO UU have a common origin. This, of course, is a license to obtain the representation of one IBOZOO UU with respect to another, since in reality IBOZOO UU have no origin, no axes, and cannot be moved to make them coincide. With all this in mind, we see that the orientation **u'** of **the red** IBOZOO UU forms angles $\alpha, \beta, \gamma$ with each of the orientations **u, v, w** of the reference IBOZOO UU ( see Figure 2).

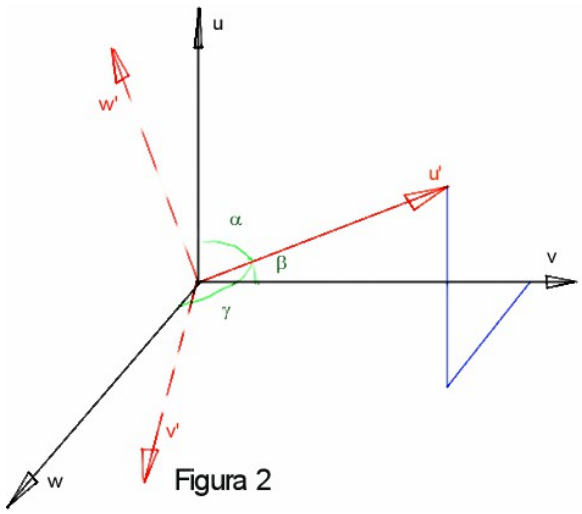



Figura 2

A standard way of representing the orientation **u'** relative to **u, v, w** is based on its direction cosines, that is, on the projections of **u'** (assumed to have modulus one) onto **u, v, w.** These direction cosines cos(α), cos(β), ⌧⌧⌧ cos(γ) uniquely define the direction **u'**, allowing us to represent it as **u'** ≡ (cos(α), cos(β), cos(γ)). A condition satisfied by the direction cosines (in Euclidean space) is:

$\cos^2(\alpha)+\cos^2(\beta)+\cos^2(\gamma)=1$. The same could be said for **v'** and **w'**. In a more concise form, we can write the direction cosines as: **u'** ≡ (a11,a12,a13)

**v'**≡ (a21,a22,a23)

**w'** ≡ (a31,a32,a33) which must satisfy the following conditions: Normalization: $(ai1)^2 + (ai2)^2 + (ai3)^2 = 1$, (for i = 1, 2, and 3)

Orthogonality: ai1*aj1+ ai2*aj2+ ai3*aj3= 0, (for i≠ j; i= 1, 2, and 3, j= 1, 2, and 3)

Overall, we could describe the IBOZOO UU (**red**) with a 3x3 matrix containing the sorted cosines of each of its orientations with respect to the reference orientation, that is:

I.U. (**red**) ≡

$$\begin{Vmatrix} a11 & a12 & A13 \\ a21 & a22 & A23 \\ a31 & a32 & A33 \end{Vmatrix}$$

Although it is unnecessary to mention it, the reference IBOZOO UU with respect to itself would be represented by:

I.U (ref.) ≡

$$\begin{Vmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{Vmatrix}$$

Returning to the authentic IBOZOO UU, the Ummites tell us that they "express" a ten-dimensional universe, and I interpret this, although it is not specifically stated in any document, as meaning that they themselves, the IBOZOO UU, are composed of 10 orthogonal orientations. We will see that this is compatible with their expression of a ten-dimensional universe.

The Ummites present the "internal" structure of an IBOZOO UU as that of an n-dimensional hypersphere, in which, once the radius is normalized, we can consider n orthogonal orientations that determine in the hypersphere n unit radius vectors that we can describe by their cosine directions with respect to the OAWOO of any other IBOZOO UU taken as a reference, since it is absurd to consider a system of absolute axes internal to the IBOZOO UU itself. Let's take a look.

**As the Ummites present the structure of an IBOZOO UU in D 59-2: TEXT 2.- THE**

**CONCEPT OF THE IBOZOO UUhttp://www.ummo-sciences.org/fr/D59-2.htm**

The WAAM that we know is a CONNECTED SET (AYUU) or NETWORK of IBOZOO UU such that if we identify this set with an ordered series of natural numbers: N tends towards infinity. *(or "becomes"? Written: N----------> infinity).*

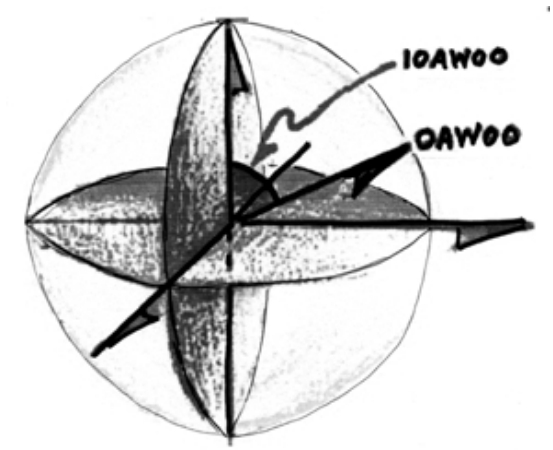
It is necessary to give you the most accurate picture of the true nature of the IBOZOO UU, which has nothing to do with the MATHEMATICAL POINT, nor with a PARTICLE, nor with a QUANTUM of energy according to terrestrial concepts. You must therefore rid your minds of images as familiar as the POINT and LINEAR DIMENSION.

If you have a background in mathematics, you are familiar with the concept of HYPERSPHERE in an N-SPACE.

We can represent such a geometric body analytically. Its corresponding equation is familiar to students. If we represent the quantities defined in the N axes by $a_1$, $a_2$, $a_3$, .....$a_n$, the radius R of the HYPERSPHERE will be defined by:

$$R = \sqrt{(a_1 - a_1')^2 + (a_2 - a_2')^2 + \ldots + (a_N - a_N')^2}$$

Since we cannot graphically represent such a HYPERSPHERE, we will assume a three-dimensional SPHERE whose axes are oriented orthogonally.



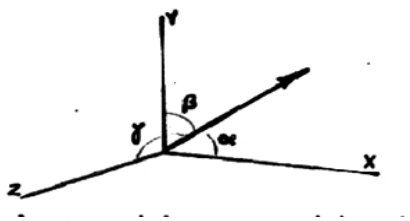

We are trying to choose a mathematical (symbolic) model that represents L'IBOZOO UU. Please note: when we refer to a vector radius, for example, no one should assume that this radius will actually be materialized in L'IBOZOO UU.

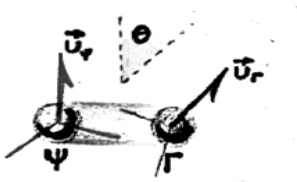
We consider in the sphere of figure S59-f10 an OAWOO (with this name we specify in the sphere both the concept of AXIS used by terrestrial mathematicians and the VECTOR with its attributes of modulus, origin, and end). In this case, you will translate OAWOO as VECTOR RAY U *(U with an arrow)*.

If we consider an N-dimensional HYPERSPHERE, we can conceive as many other OAWOO (VECTOR RAYS) as these quantities represent.

Let U1, U2, U3 be r Un, *(U fléchés)* whose respective orientations are orthogonal, i.e. they form angles of Π/2 radians between them.

Seen in this way, the IBOZOO UU could be interpreted as a closed multidimensional space, and you would start to imagine it again with its points, lines, planes, hyperplanes, immersed volumes, and hypervolumes. Nothing could be further from the true real concept of the IBOZOO UU. When we refer, within the IBOZOO UU, to an OAWOO (AXIS) and its orientation, it is clear that such an orientation has no geometric meaning without a frame of reference. So when one of you imagines a straight line in space, you must mentally draw a system of axes (which you call Cartesian) so that the line is defined both by its module (expressed by six coordinates on the axes) and by its cosine directors: Cos(Alpha), Cos(Beta), and Cos(Gamma) (59-f11, *left side).*



But you can see that this reference system has been chosen arbitrarily within the Euclidean space you have imagined. **IT IS VERY IMPORTANT THAT YOU REALISE THIS DIFFERENCE** compared to the IBOZOO UU.
IT IS NOT POSSIBLE TO CHOOSE A REFERENCE SYSTEM IN THE SAME IBOZOO UU. Such a REFERENCE SYSTEM MUST BE PROVIDED BY **ANOTHER** IBOZOO UU, chosen arbitrarily. Thus (in Figure 11, *right)*, if we assume two IBOZOO UU ( Ψ) ( Γ ), it would be meaningless to refer to the cosine directions

**cos (α) cos (β) cos (γ)**

that the OAWOO UU would form with an ideal trihedron, whose origin would be the "CENTER" of the HYPERSPHERE. Thus, we can only refer to the ANGLE Θ IOAWOO that $U_{(r)}$ *(U arrow)* of (Γ ) forms with the OAWOO (RAY VECTOR) $U_{(v)}$ *(U arrow)* of (Ψ).

If we take an IBOZOO UU "IU0" as a reference, extending what has been said for the three orientations, we can represent another IBOZOO UU "IU1" by the ordered matrix of the director cosines that each orientation of IU1 forms with each of the orientations of IU0. That is:

$$IU1 \equiv \begin{Vmatrix} a00 & a01 & a02 & a03 & a04 & a05 & a06 & a07 & a08 & a09 & a10 \\ a11 & a12 & a13 & a14 & a15 & a16 & a17 & a18 & a19 & a20 & a21 \\ a22 & a23 & a24 & a25 & a26 & a27 & a28 & a29 & a30 & a31 & a32 \\ a33 & a34 & a35 & a36 & a37 & a38 & a39 & a40 & a41 & a42 & a43 \\ a44 & a45 & a46 & a47 & a48 & a49 & a50 & a51 & a52 & a53 & a54 \\ a55 & a56 & a57 & a58 & a59 & a60 & a61 & a62 & a63 & a64 & a65 \\ a66 \text{ to } 67 \text{ to } 68 \text{ to } 69 \text{ to } 70 \text{ to } 71 \text{ to } 72 \text{ to } 73 \text{ to } 74 \text{ to} \\ 75 \text{ to } 76 \text{ to } 77 \text{ to } 78 \text{ to } 79 \text{ to } 80 \text{ to } 81 \text{ to } 82 \text{ to } 83 \text{ to} \\ 84 \text{ to } 85 \text{ to } 86 \text{ to } 87 \text{ to } 88 \text{ to } 89 \text{ to } 90 \text{ to } 91 \text{ to } 92 \text{ to} \\ 93 \text{ to } 94 \text{ to } 95 \text{ to } 96 \text{ to } 97 \text{ to } 98 \text{ to } 99 \end{Vmatrix}$$

The normalization and orthogonality conditions can now be summarized as follows Th
us: Normalization: $\sum (aij)^2 = 1$ (for j = (0;9) for each i = (0;9)) Orthogonality:
$\sum aij * akj = 0$ (for j= r (0;9) for i≠ r k, i= r (0;9) and k= r (0;9))

In the same way, another IBOZOO UU oriented identically to the reference one (which is impossible because, according to your logic, that IBOZOO UU would become the same as the reference one)

**TEXT 3.-** **http://www.ummo-sciences.org/fr/D59-3.htm** You must understand this before continuing further. Even if it is difficult to accept because of your usual logical reasoning. If you imagine in space an infinite range of small spheres or small multicolored balls, each different from the next in color and in its color in shades, you will then have a rough image of WAAM.

Now imagine that you suddenly locate two spheres of exactly the same color and shade. Using the logical mechanisms in use, you would say that if these two small balls are in different places, they are different entities. In short, they are two balls, and this plurality of spheres differentiated by color has failed miserably.

But if we move this reasoning to the cosmos: if you locate two IBOZOO UU that were until now distinct because their "axes" (OAWOO) were oriented in different directions, and if you now contemplate them from this perspective and the two IBOZOO UU are equal; you would then have to use a different line of reasoning, separate from the two-valued logic, and assert that these "two" IBOZOO UU are the "same" IBOZOO UU.

And indeed: a pair of IBOZOO UU that, in one reference system, appeared to be different, for example a neutron and a pion, when changing reference axes, these two subparticles that in another frame appeared to the observer as if they were so distant that they belonged to two different galaxies, must be considered, in another three-dimensional system, as the same IBOZOO UU.

This would be represented as follows:

$$I\,U\,0 \equiv \left\| \begin{array}{cccccccccc} 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \end{array} \right\|$$

Here I believe I am introducing a conceptual "a priori," which consists of admitting from the outset that the geometry of ten-dimensional space described by the IBOZOO UU (if this makes sense) is isotropic and somehow Euclidean (why not admit, for example, imaginary director cosines?). This may not be true, but at least this matrix of director cosines can serve as a first attempt at a system for expressing one IBOZOO UU with respect to another taken as a reference.

Before moving on to the authentic ten-orientation IBOZOO UU, let's work a little with the three-orientation ones, since we can imagine them better and some of the conclusions we draw from them can be exported to the "n"-dimensional IBOZOO UU.

**Subset of IBOZOO UU (3D) that define an orientation (2D) and a space (1D)**

Let's imagine the set formed by all the IBOZOO UU (3D). Although we will inevitably imagine them as a cloud of three-dimensional axes, we know that this is not the case since they are prior to space[1] (Fig. 3).

[1]To avoid the tendency to imagine IBOZOO UU distributed in space, I like the image of a computer's memory. We know that in a computer's memory, information is stored in small cells, encoded in the form of octets (bytes) and distributed randomly. Among the information stored in memory at any given moment is the information that defines the position (affected pixel), color, intensity, brightness, etc. of each of the pixels or dots that make up the screen. I like to think of the computer screen as the equivalent of the psychological image that our mind (CPU) creates from non-spatial information. In fact, the information that the CPU handles to represent the points on the screen is located randomly in memory. We could
establish the comparison, "bytes encoding screen information"←→ IBOZOO UU, CPU←→ mind and "graphical representation on screen"←→ "mental representation of 'space'". In short, information (encoded in the IBOZOO UU or in the bytes of memory) that does not need to be imagined as linked to a specific spatial point
, induces a 'spatial' representation through an interpretive system (CPU + program or Consciousness). (THIS IMAGE IS OBVIOUSLY INCORRECT, SINCE EVEN THE COMPUTER MEMORY IS LOCATED IN SPACE AND THE IBOZOO UU ARE PREVIOUS, BUT... I THINK YOU UNDERSTAND WHAT I MEAN).

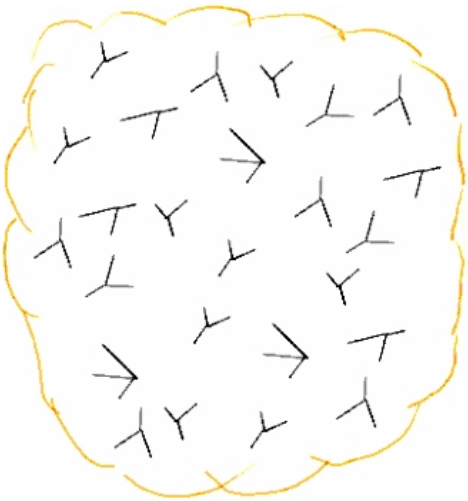


Figura 3

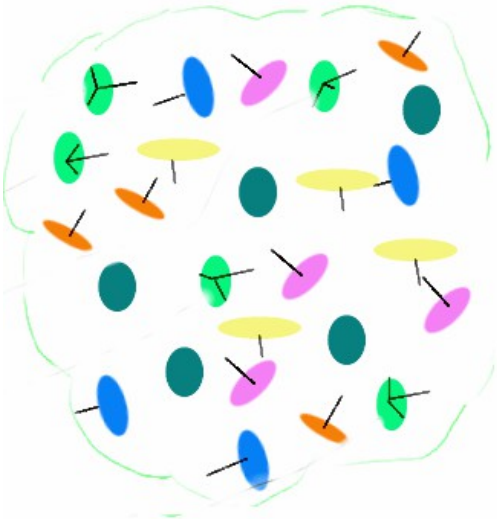


Figura 4

Of all the IBOZOO UU that exist (Figure 3), let's imagine that we group them according to the criterion that they have two of their orientations parallel to a given plane. We can imagine them as small umbrellas oriented in all directions such that those with the "plane" defined by the fabric parallel to the same direction have the same color (Fig. 4). And now, for example, let's select only the green ones.

These "green" IBOZOO UU have the characteristic of "generating" a one-dimensional space within a two-dimensional subspace. What I mean is that through unambiguous and univocal interpretative rules, from the set of "green" IBOZOO UU (with two of their axes oriented parallel to the green plane), we can imagine or construct or define (whatever we want to call it, since I am proceeding as if classical Euclidean space did not exist and we had to abstract it from some previous elements, the IBOZOO UU) a three-dimensional isotropic space in which the orientation of a plane (green) would then be defined and within it we would have a one-dimensional subspace (the intense green circumference in Fig. 5) such that each infinitesimal section (we will see later that it is not as small as we would like) of the circumference would be uniquely defined by two "connected" IBOZOO UU, that is, such that there is no other between them that "cuts" a smaller angle, and in which the distance defined for two IBOZOO UU would be given by the angular difference ($\alpha$ in Fig. 5) between the orientation (two-dimensional OAWOO) formed by the two OAWOO that rotate in that plane.

If we select a very limited environment within that one-dimensional space (the circumference), assuming it has a very large radius, we know that in that environment the circumference can be assimilated to a straight line and the angular differences could be assimilated to the classical scalar magnitudes we call distances.

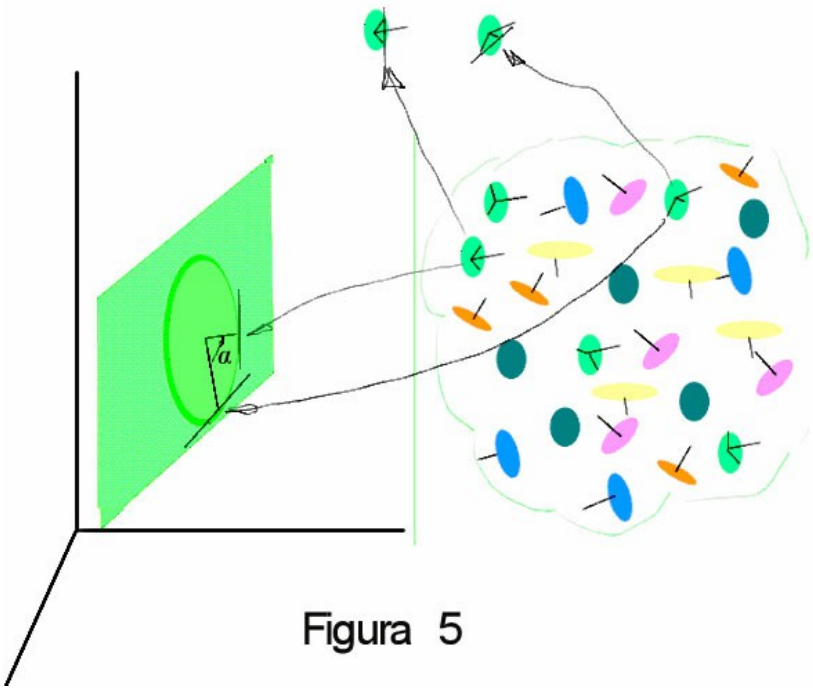


Figura 5

We could have done the same for the "blue," "pink," "yellow," etc. orientations.

If we return to the mathematical representation we have selected, given any IBOZOO UU "IU0" and any two of its OAWOO, the orientation of a two-dimensional space is defined, and within it, the geometry and metrics of a one-dimensional space are defined as follows.

$$IU0 \equiv \begin{Vmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{Vmatrix}, \qquad IU1 \equiv \begin{Vmatrix} a11 & a12 & 0 \\ a21 & a22 & 0 \\ 0 & 0 & 1 \end{Vmatrix}$$

Obviously, the axes that move in the "green" plane have no projection on the axis perpendicular to the plane, and therefore the direction cosines on that orientation will be zero. If we apply the normalization and orthogonality conditions, we will find that the set of IBOZOO UU that have two of their orientations parallel to a plane takes the following general form (this is what others have called the rotation matrix, see explanation in Figure 6 ).

$$\boxtimes\boxtimes 1 = \begin{vmatrix} \cos\alpha & \sin\alpha & 0 \\ -\sin\alpha & \cos\alpha & 0 \\ 0 & 0 & 1 \end{vmatrix}$$

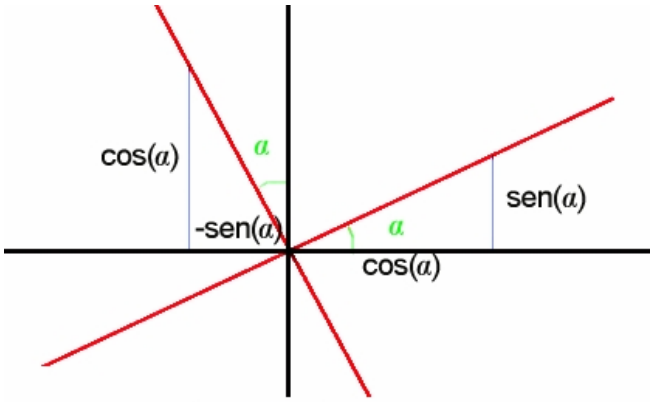


Figura 6

The same thing we did for the two-dimensional "green" orientation could have been done for "pink," "blue," "yellow," "orange," etc. In short, we see that these pseudo-IBOZOO UU of three orientations generate the geometry and metrics of one-dimensional spaces, each of which is located on each of the infinite orientations that a plane can have in a three-dimensional space.

**Subset of IBOZOO UU (10D) that define an orientation (2D) and a space (1D)**

If we abandon the IBOZOO UU (3D) and return to those with ten orientations, what we said above will be approximately valid.

We can thus imagine the set of all ten IBOZOO UU orientations and group them according to the criterion that two of them are parallel to a flat two-dimensional surface. We can represent this as in Figure 7, which is similar to Fig. 4, but in which we have replaced the one-dimensional "orientation" perpendicular to the colored plane with a red line that represents a space determined by the other eight orientations. This is, of course, an imaginative license, since we cannot represent the projection onto a plane (sheet of paper) of spaces greater than three dimensions. However, I will use this resource several times in the future.

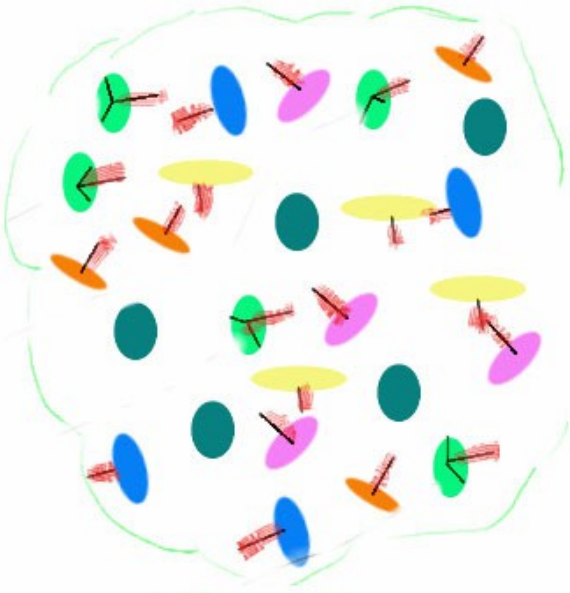


Figura 7

The mathematical representation of the set of IBOZOO UU that have two of their orientations "rotating" parallel to the two-dimensional space formed by any two of them from any IBOZOO UU taken as a reference and the rest of their orientations parallel to the equivalent ones of the reference, will be given by the matrix:

$$IU(n) \equiv \begin{Vmatrix} cos\alpha & \sin\alpha & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\sin\alpha & cos\alpha & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \end{Vmatrix}$$

If we want to be more general and represent the set of IBOZOO UU that have two of their orientations "rotating" parallel to the two-dimensional space formed by any two of any IBOZOO UU taken as a reference and the rest of their orientations "rotating" within the 8-dimensional space parallel to that defined by the other 8 remaining ones of the reference IBOZOO UU, we will have to define it by the matrix:

$$IU(n) \equiv \begin{Vmatrix} cos\alpha & \sin\alpha & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ -\sin\alpha & cos\alpha & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & a22 & a23 & a24 & a25 & a26 & a27 & a28 & a29 \\ 0 & 0 & a32 & a33 & a34 & a35 & a36 & a37 & a38 & a39 \\ 0 & 0 & a42 & a43 & a44 & a45 & a46 & a47 & a48 & a49 \\ 0 & 0 & a52 & a53 & a54 & a55 & a56 & a57 & a58 & a59 \\ 0 & 0 & a62 & a63 & a64 & a65 & a66 & a67 & a68 & a69 \\ 0 & 0 & a72 & a73 & a74 & a75 & a76 & a77 & a78 & a79 \\ 0 & 0 & a82 & a83 & a84 & a85 & a86 & a87 & a88 & a89 \\ 0 & 0 & a92 & a93 & a94 & a95 & a96 & a97 & a98 & a99 \end{Vmatrix}$$

But let's define more clearly the OAWOO (the orientation) that "rotates" within an n-dimensional subspace, and to do so, let's look again at Figure 7.

In this image, we wanted to represent the set of IBOZOO UU. In each of them, we looked at any two OAWOO and drew with a circle (an ellipse in the projection on the paper) of different colors the "orientation" of the two-dimensional subspace that those two OAWOO defined. We represented the remaining 8 dimensions, which are orthogonal to each other and also orthogonal to the first two, we represented them with a red line Then we selected any orientation (the green one) and saw that in that "plane" (actually in that two-dimensional subspace within the general ten-dimensional space) the orientation of the two OAWOO contained in it could point in all directions, together covering a flat angle of 2π. Based on this

characteristic, we said that by means of an unambiguous interpretative rule, we could establish the correspondence with a linear, or one-dimensional, space, which would be a circumference, and within this space a metric was fixed since we defined the distances as the angle (IOAWOO) formed by the OAWOO, contained in that plane, of two different IBOZOO UU, which in turn were in correspondence with each other, "connected" with a minimum section of the circumference, or to be more exact, the corresponding IOAWOO defines a section of the circumference. But talking about the angle (IOAWOO) that two OAWOO form with two others is redundant and cumbersome. In the series of figures below, we see how we reduce the two OAWOO that rotate in this green reference space to a single OAWOO (without any loss of information).

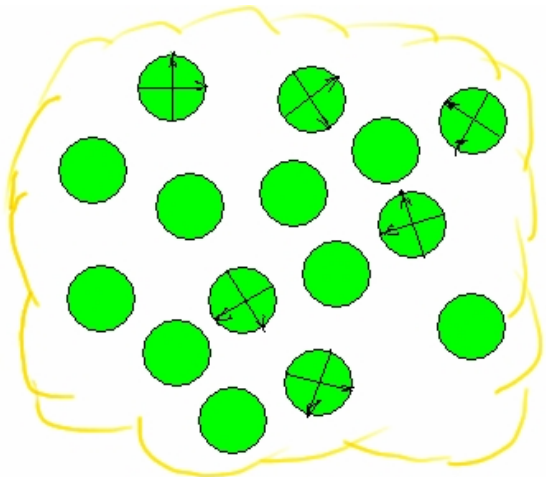


Figura 15

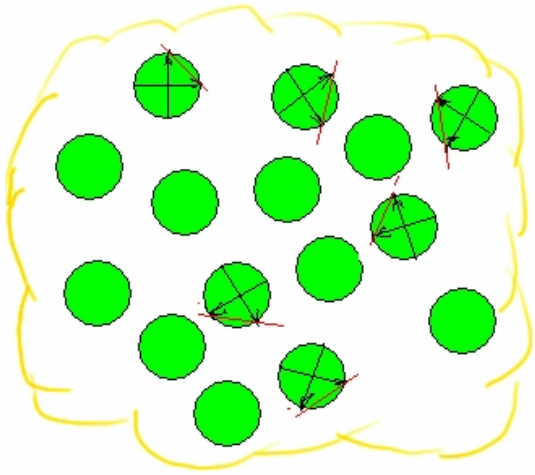


Figura 16

In Figure 15, I wanted to represent what we might call a "front" view of the two axes contained in the two-dimensional "green" direction. I have drawn the two OAWOO of some of these IBOZOO UU. We see in Figure 16 that each one "defines" an orientation that I have represented with the red lines (the orientation could also be represented by the perpendicular to that red line). In Figure 17, we see how each IBOZOO UU (actually each "connected" pair) could be matched with a minimum section of a circle located in the "green" plane (oriented two-dimensional subspace), which in this case we assume is the same as the paper.

In reality, it is an abuse to say that an IBOZOO UU is placed in correspondence with a point on the circumference, since it would be more correct to say that between two IBOZOO UU, such that their orientations are so close that there is no other that is closer, they generate a discrete but minimal section of the circumference, but I do so to simplify the image.

**TEXT 4.-** http://www.ummo-sciences.org/fr/D59-2.htm You must not in any way think that a POINT ON THIS LINE could be represented by an IBOZOO UU, because we have already told you that an IBOZOO UU in itself has no meaning. In all cases, we will define an **elementary segment** as a linked pair of IBOZOO UU. We also refute once and for all the CONCEPT OF GEOMETRIC POINT that terrestrial mathematicians have introduced into your brains. If you have not understood this, it is because you have not managed to assimilate the authentic meaning of our physics.

In a sufficiently small environment of one of these points (or segments), a one-dimensional entity living in that space would imagine that the magnitude of distance

would be a scalar. But although the orientation according to the line (red) that joins the two OAWOO that rotate in two-dimensional space is intuitive in suggesting the circumference to us on the basis of tangents, we can also see the IOAWOO (the angle) formed by those

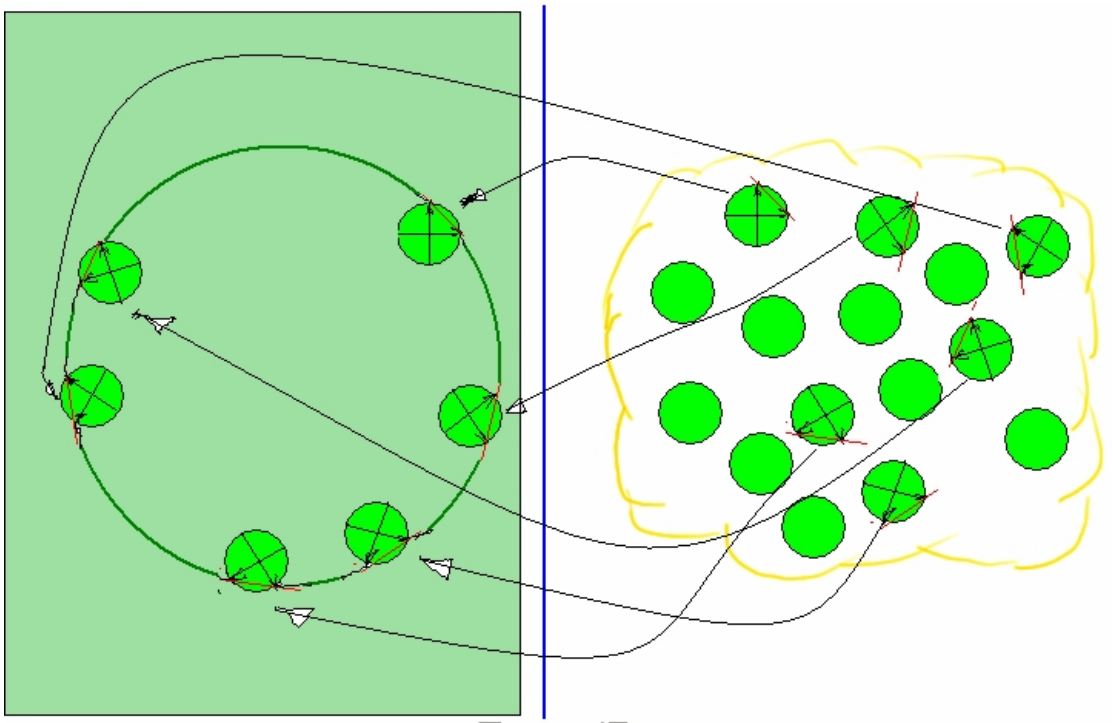


Figura 17

OAWOO, if we replace the two OAWOO rotating in the "green" plane with a single one perpendicular to the red line, as shown in Figure 17-1.

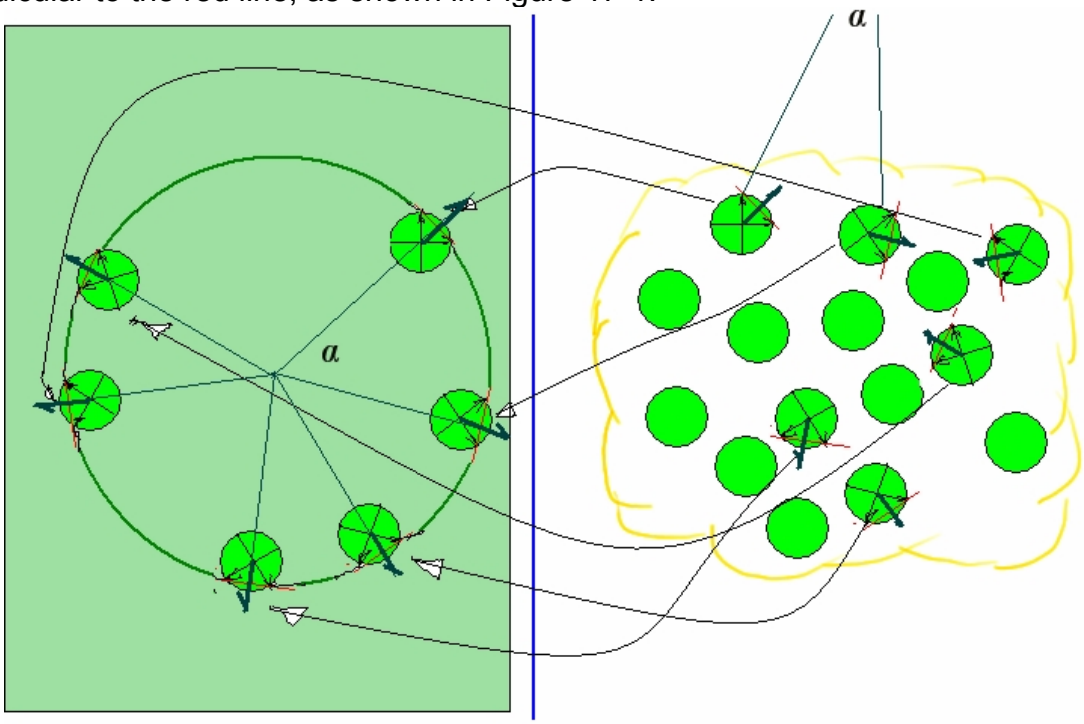



Figura 17-1

To mathematically represent the angle formed by a specific OAWOO with any other, rotating both within that two-dimensional subspace defined by the reference one

reference, we simply represent these OAWOO that "rotate" by the cosines with respect to the two OAWOO of the reference. We see that within the infinite (countable) IBOZOO UU that make up the WAAM WAAM, we have arbitrarily chosen one that becomes the reference. From among the ten OAWOO of this one, we have selected any two that define an orientation within the ten-dimensional space, in the form of a two-dimensional subspace. There will be an immense number of IBOZOO UU that have two of their OAWOO parallel or "rotating" in that orientation, and now, in relation to that reference IBOZOO UU, we can "interpret" those two OAWOO that rotate in that two-dimensional space as a single one that rotates freely (review Figure 17 and Figure 17-1) in that space, all of them giving rise, through the interpretive rules that we have repeated so many times, to the geometry and metrics of a one-dimensional space in the form of a circumference.

For calculation purposes only, we draw on the plane the two OAWOO (in black) that define this orientation of the reference IBOZOO UU, as well as an OAWOO (in red) for each of the two IBOZOO UU that we will represent by the unit vectors **u** and **v** between which we want to measure the angular distance (Figure 18).

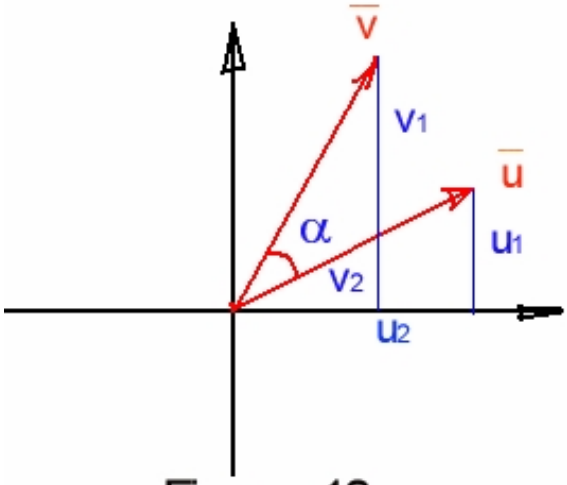


Figura 18

We can represent **u** ≡ ($u_1$, $u_2$) and **v** ≡ ($v_1$, $v_2$). On the other hand, we know that the scalar product of two unit vectors is: **u v** = cos (α) = $u_1 v_1 + u_2 v_2$

If we recall the formula provided by the ummites in letter D59-2:

$$\cos\vartheta = \frac{\varepsilon[u_0 v_0/\lambda^2 + u_1 v_1 + u_2 v_2 + \cdots + u_n v_n]}{\{[u_0^2/\lambda^2 + u_1^2 + \cdots + u_n^2][v_0^2/\lambda^2 + v_1^2 + \cdots + v_n^2]\}^{1/2}} \qquad \text{(Formula 1)}$$

We see that the product of **u v** this is cos (α) corresponding to the angle formed by the two OAWOO coincides with that of the previous formula for Є and λ= 1, that is, for

a flat Euclidean space. However, "formula 1" is valid in an n-dimensional Minkowsky space containing the space-time that we will arrive at later (the identification of this formula as belonging to a Minkowsky space geometry is due to the research of Nom Prenom).

**Subset of IBOZOO UU that define an orientation (3D) and within it a space (2D)**

Expanding on what has been said so far, and repeating the process, we can choose from the countable infinite set (we will see later what this means) formed by all the IBOZOO UU, any one of them, and in this, we can focus on three of its orientations (OAWOO). These three orientations define a three-dimensional space oriented in a specific way among the infinite possibilities in a ten-dimensional space. In effect, just as in the case of three-dimensional IBOZOO UU, where we saw infinite "umbrellas" oriented in as many directions in three-dimensional space, we now have infinite possible three-dimensional orientations in ten-dimensional space. We can then select from among all the IBOZOO UU only those that have three of their axes immersed (rotating parallel) in the direction of the aforementioned three-dimensional space defined by the reference space, and therefore the rest of their orientations will be contained (defining a 7-dimensional space) in the space defined by the other seven remaining orientations of the reference IBOZOO UU.

Let us see once again that these IBOZOO UU define the orientation of a three-dimensional space and, within it, additionally and unambiguously, the geometry and metric of a two-dimensional space. Although incorrect, we will use a graphical representation derived from the one we saw earlier. Now the three black axes represent orthogonal orientations of three OAWOO of the IBOZOO UU within a ten-dimensional space, and the red line represents the remaining seven-dimensional space, as shown in Figure 8.

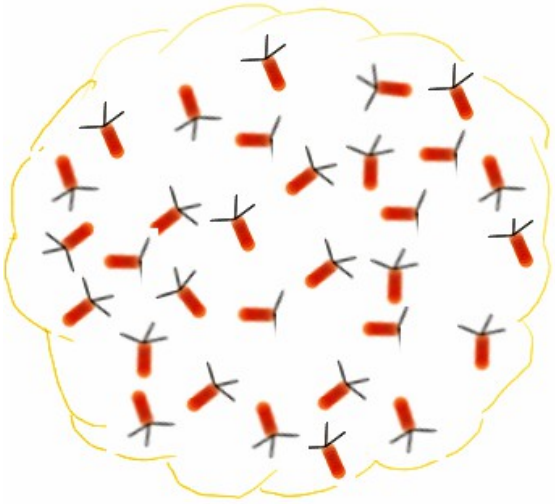


Figura 8

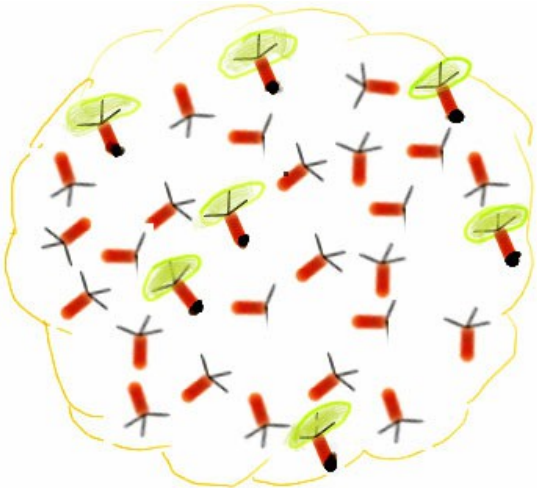


Figura 9

In Figure 9, we represent with a greenish color those IBOZOO UU that have three of their axes contained in a specific three-dimensional space, within the ten-dimensional space, among the infinite possible three-dimensional orientations, and, as is logical, the remaining seven OAWOO "rotating" within the seven-dimensional space perpendicular to the green, which I have represented with a red line ending in a black dot to differentiate it from the rest of the non-parallel seven-dimensional spaces.

Of course, each of the three OAWOO contained within the "green" space are not parallel from one IBOZOO UU to another, as they appear erroneously in Figure 9, since then they would represent a single IBOZOO UU for an observer located in that space, but rather the three axes "rotate" or "orient" themselves in all possible ways within that three-dimensional orientation (space), as I intend to show in Figure 10 (No, they are not trees!).

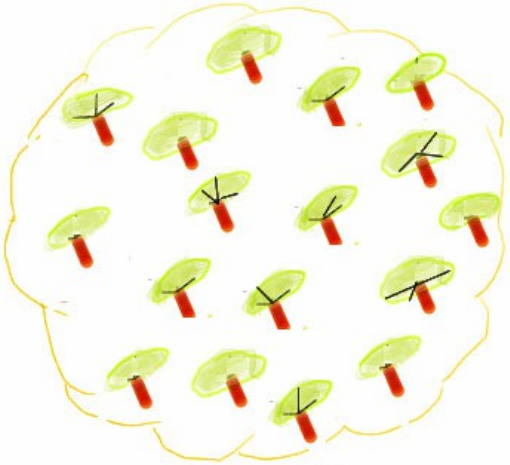


Figura 10

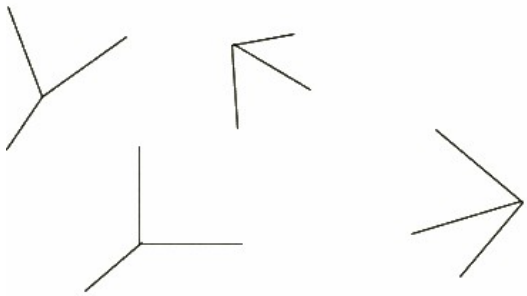


Figura 11

What does it mean that the three OAWOO rotate or turn within the green three-dimensional space? If we imagine that green is the three-dimensional space in which we live (at least the three-dimensional space in which we believed we lived until the Ummites arrived), we can imagine reference trihedra oriented in infinite directions (see Figure 11). These trihedrals would represent the "real" OAWOO (the orientation) of the IBOZOO UU within the "green" space, and the distance between them would be defined by the angle they form. What angle do they form between themselves? Precisely the angle formed by the planes defined by the unit elements according to the three directions of each trihedron, or the directions perpendicular to those planes. I explain this better in Figure 12.

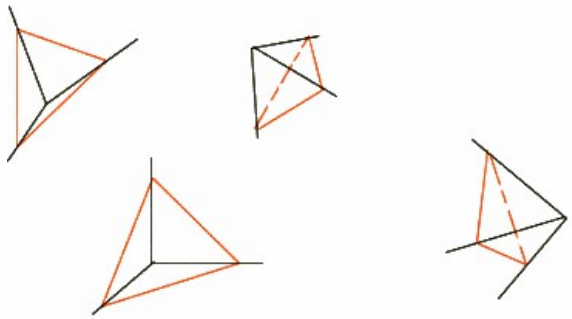
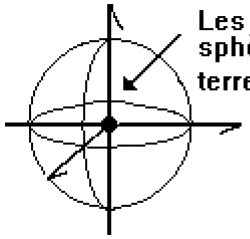


Figura 12

**TEXT 5.-** http://www.ummo-sciences.org/fr/D59-2.htm You can see that little by little we are adjusting the authentic concept of IBOZOO UU defined by our UMMO specialists more and more accurately. We thought that presenting an exact definition from the outset would excessively confuse the didactic nature of these paragraphs, given that no theory similar to ours in its formulation exists on planet Earth.

Note also that in translating this definition, we have stated that IBOZOO UU are composed of a BUNDLE OF ORTHOGONAL AXES THAT CANNOT INTERSECT EACH OTHER. This
is very difficult to understand if you continue to hold on to the classic mental image of Euclidean SPACE with its grid of points and lines.



**Les rayons vecteurs se coupent au centre de la sphère (point d'un espace Euclidien conçu par les terrestres).**

Naturally, if the IBOZOO UU were like a sphere or a hypersphere (S59-f17), the different axes within it could INTERSECT AT A POINT (for example, the vector rays would intersect at the center). Such a mathematical model DOES NOT TRULY REPRESENT the IBOZOO UU.

We chose the sphere model in our description only to obtain a more faithful translation of the concepts using algorithms, mathematical notation, and geometric concepts that are very familiar to Earthlings. (This is a bit like what you do when, for simplicity's sake, you consider the Earth as an ideal sphere even though you are aware that it is a (deformed) ellipsoid of revolution. (Isosceles ellipsoid with three axes)).

**Let us therefore assume a SPHERE (S59-f17) which would constitute one of an infinite number of hyperplanes, meridian of a HYPERSPHERE of order N = 4**. (If you are not familiar with this concept, imagine that if we give the name meridian plane to the section of a sphere that passes through its center, namely the sphere of order N = 3, for a HYPERSPHERE of dimensions 4, its section will be precisely a figure of N - I dimensions, i.e., a sphere).

You must therefore remember the concept of ANGLE in HYPERSPACE.

**Q= Q (P,Q)** *(ndt: with inverted circumflex accents on these 4 letters, here and below)* where P and Q are two HYPERPLANS defined by the coordinates
U= ($U_0$ $U_1$ $U_2$ ..... $U_n$) and V= ($V_0$ $V_1$ $V_2$ $V_n$

In our case, in the three-dimensional section of the IBOZOO UU (according to the "green" orientation we have selected), the orientation of each IBOZOO UU in that space is given by the real OAWOO, that is, for each IBOZOO UU, one of the infinite CIRCUMFERENCES or hyperplanes of a HYPERSPHERE of order N = 3 that determine a plane according to the orientation I have drawn with a red line in Figure 12. Of course, the IBOZOO UU is not composed of axes that can be interpreted as oriented lines, although this image helps us to extrapolate our concept of three-dimensional axes to an n-dimensional space, and therefore it is absurd to think that three of these OAWOO subtend a plane defined by the ends of three unit vectors according to each of the directions. In reality, as we are told, the IBOZOO UU is an oriented "nothing," or with the ability to "look" in ten orthogonal directions. When we consider the

subspace defined by two OAWOO of any IBOZOO UU, we see that the IBOZOO UU that have two OAWOO contained in that subspace can "look" inside it by traversing a plane angle of 2π. Returning to the following Ummite phrase:

**TEXT 6.-** **"http://www.ummo-sciences.org/fr/D59-2.htm"** If you replace the concept of OOAWOO (RAYON VECTEUR) from our previous, more simplistic model with that of HYPERPLAN of order N = 4 and if you assume these reference HYPERPLANS not in the IBOZOO UU studied, but in another one linked to it,……..

Applying the previous definition of "real" OAWOO to the subspaces we have already seen, we would say that:

- In the order 2 subspace, the order N = 2 HYPERPLANE that replaces the simplest concept of OAWOO (RADIUS VECTOR) is a straight line (see Figures 17 and 17-1), assuming that this HYPERPLANE (straight line) is not in the IBOZOO UU studied but in another connected one...
- In the order 3 subspace, the order N = 3 HYPERPLANE that replaces the simplest concept of OAWOO (RADIUS VECTOR) is a plane (see Figures 12 and 13), assuming that this HYPERPLANE (plane) is not in the IBOZOO UU studied but in another connected one...
- In the order 4 subspace, the order N = 4 HYPERPLANE that replaces the simplest concept of OAWOO (RADIUS VECTOR) is a sphere, assuming that HYPERPLANE (sphere) is not in the IBOZOO UU studied but in another connected one.... As we will see and as expressed in Text 4 (subset of Text 5 on the previous page).

Let's review what we are doing. Among all the IBOZOO UU, we select those that have three of their OAWOO contained within a given three-dimensional orientation. This is similar to what we did with the pseudo IBOZOO UU (3D), where we selected those that had two of their axes "parallel" to any two-dimensional direction (a plane). Just as in three-dimensional space there are infinite two-dimensional orientations (planes), in a ten-dimensional space we can consider infinite three-dimensional "orientations." All IBOZOO UU that have three of their OAWOO contained (rotating) in a given three-dimensional orientation (of course there are infinite IBOZOO UU that do not meet this condition, just as there were IBOZOO UU (3D) that did not have any of their axes parallel to the "green" plane) can be expressed with the mathematical notation we have selected as follows:

$$IU(n) \equiv \begin{Vmatrix} a00 & a01 & a02 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ a10 & a11 & a12 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ a20 & a21 & a22 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & a33 & a34 & a35 & a36 & a37 & a38 & a39 \\ 0 & 0 & 0 & a43 & a44 & a45 & a46 & a47 & a48 & a49 \\ 0 & 0 & 0 & a53 & a54 & a55 & a56 & a57 & a58 & a59 \\ 0 & 0 & 0 & a63 & a64 & a65 & a66 & a67 & a68 & a69 \\ 0 & 0 & 0 & a73 & a74 & a75 & a76 & a77 & a78 & a79 \\ 0 & 0 & 0 & a83 & a84 & a85 & a86 & a87 & a88 & a89 \\ 0 & 0 & 0 & a93 & a94 & a95 & a96 & a97 & a98 & a99 \end{Vmatrix}$$

As expected, we see that the "orientations" (OAWOO) defined by the direction cosines (a00, a01, a02) as well as (a10, a11, a12) and (a20, a21, a22) have no projection onto the other dimensions, since they "rotate" within the three-dimensional subspace generated by three of the orientations of the reference IBOZOO UU.

Of course, the conditions of normalization and orthogonality would impose restrictions such that we would have only two degrees of freedom instead of three, that is, if any two orthogonal orientations were chosen within that three-dimensional space, the third would necessarily be perpendicular to the previous two.

We can see that this subset of IBOZOO UU "defines" the orientation of a three-dimensional space, from among the infinite possibilities in ten-dimensional space, and within it, these I.U.s "generate" a geometry and a metric. In fact, we see that the trihedra (the direction in which the "planes" that define them "face") in Figure 12 can be oriented in all directions of three-dimensional space, that is, as a whole they are "oriented" in all directions of a three-dimensional space, covering a solid angle of 4π, which means that they define a surface, or rather a spherical two-dimensional hypersurface, within three-dimensional space, which is in turn a subspace of ten-dimensional space, so that for every two connected IBOZOO UU (separated by a minimum IOAWOO) there corresponds uniquely an oriented segment of elementary distance on a spherical two-dimensional surface, thus forming the "mesh" or framework of that two-dimensional universe in which, more generally, the distance between two points on the sphere will be given by the angle (IOAWOO) formed by the two OAWOO (orientations of the OAWOO trihedron) of the two IBOZOO UU that "express" those extremes, as we can see in Figure 13.

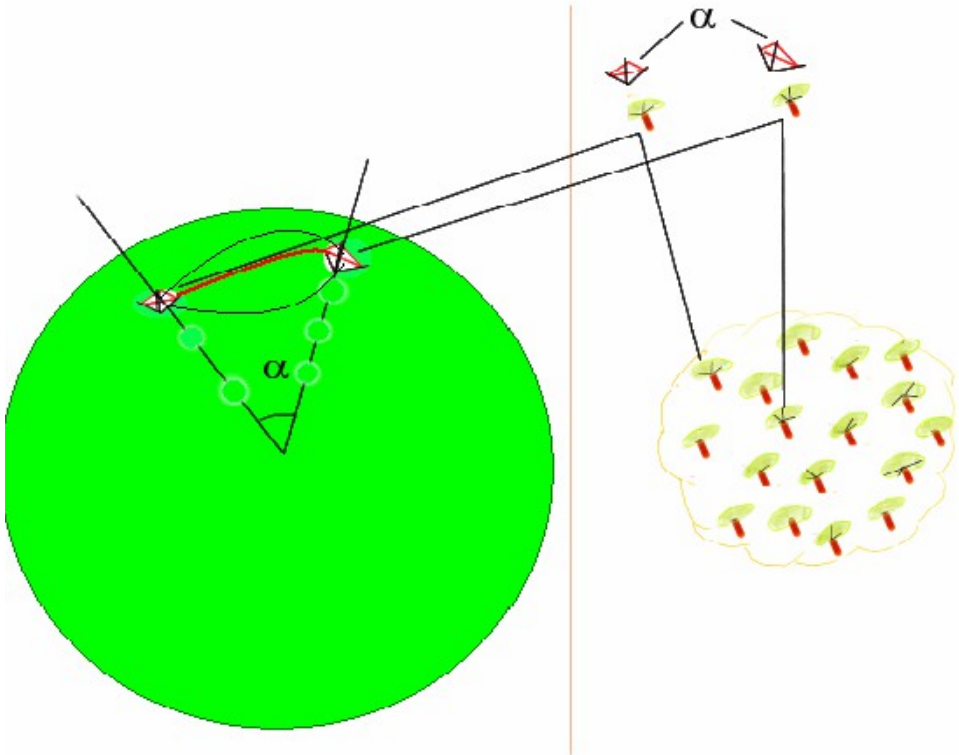



Figura 13

In Figure 13, we see that the angle **α** formed by the two OAWOO is the angle formed by the two planes (drawn with red lines as in Figure 12) defined by the

"OAWOO trihedron" and which, as we can see, would be tangent to the sphere at each point "expressed" by the corresponding IBOZOO UU. This angle **α** coincides with that formed by the "orientations" perpendicular to those "flat" directions, so we could replace what I have called the OAWOO trihedron with a single OAWOO that would represent the orientation of that IBOZOO UU (it would represent the hyperplane section of the three-dimensional hypersphere oriented in any direction) within the three-dimensional space defined by the reference space.

Of course, two-dimensional space with spherical geometry does not exist; it is only a mental construct formed from characteristics encoded in the IBOZOO UU as differences in orientation between them but which, as we can see, allow us, by means of an interpretative algorithm, to "conceive" a two-dimensional spherical space and, within it, the distances between the "points." It is clear that this interpretation is unambiguous. Each orientation of two connected IBOZOO UU corresponds to a single minimum segment on the surface of that imaginary sphere, and it is also clear that if we consider a single isolated IBOZOO UU, it will not correspond to any point since it will not encode any information.

**TEXT 7.-** **http://www.ummo-sciences.org/fr/D59-2.htm** It is nonsense to ISOLATE, in an effort of mental abstraction, an IBOZOO UU in order to study it. We COULD EXPRESS IT IN SPANISH by translating the POSTULATE known to our physicists:

**IIAS IBOZOO UU AIOOYEDOO** (THERE IS ABSOLUTELY NO ISOLATED IBOZOO UU)

Note that this postulate is in direct contradiction with the classical propositions of the theory named by Earthlings MATHEMATICAL THEORY OF SETS. Since if "**I**" belongs to W**,** (the element "**I**", (the IBOZOO UU) does indeed belong to the set W **(**WAAM)), the isolated element "**I**" is:

**I= Ø** (An IBOZOO UU considered as a set is empty)

The straight line between two points in two-dimensional space (between two IBOZOO UU) will be expressed by a sequence of IBOZOO UU such that they correspond to the "points" (or rather to the minimum segments that express every two connected IBOZOO UU) contained in: 1) the spherical surface and 2) in a plane that is perpendicular to the bundle of planes generated by the orientation planes corresponding to the two IBOZOO UU at the ends of the line, which I have represented in Figure 13 by the red line. Let's look at this a little more clearly in Figure 14. (read TEXT 8 first)

**TEXT 8.-** **http://www.ummo-sciences.org/fr/D59-2.htm** Let us suppose a SPHERE (S59- f17) that would constitute one of an infinite number of hyperplanes, meridian of a HYPERSPHERE of order N= r 4. (If you are not familiar with this concept, imagine that if we give the name meridian plane to the section of a sphere that passes through its center, namely the sphere of order N = 3, for a HYPERSPHERE of dimensions 4, its section will be precisely a figure of N - I dimensions, that is, a sphere).

You must therefore remember the concept of ANGLE in HYPERSPACE.

**=** Θ **(P,Q)** *(ndt: with inverted circumflex accents on these 4 letters, here and below)* where P and Q are two HYPERPLANS defined by the coordinates
U= ($U_0$ $U_1$ $U_2$ ..... $U_n$ ) and V= ($V_0$ $V_1$ $V_2$ $V_n$ )

These two HYPERPLANS determine a beam Γ. Thus, in this beam Γ there are two HYPERPLANS P∞ and Q∞ which are tangent to the fundamental quadric *(ndt: surface that can be represented by a quadratic equation)* Σ.

The angle **Θ= Θ (P,Q)** (where 0< or= Θ< or= P) between these two HYPERPLANS P and Q, is defined by :**Θ= Θ (P,Q)= 1/2i Log R ( P , Q , P'∞ , Q'∞ )**

This angle is defined by the equations:

……../……..

λ≠ **0** or λ = real number or λ= imaginary


*S59-f20*

In those where **ε= +1,** we assume a HYPERSPHERE with positive curvature (case of the fictitious IBOZOO UU model).

Let us remember the difference between a SPHERE with positive curvature (image 19) and a spherical surface with negative curvature (image 20), which help us understand the concepts of HYPERSPHERE with curvature ε = +1 and ε = -1

Therefore: when R (P Q, ⊠∞ ⊠∞ )= -1, we consider that the two HYPERPLANS are orthogonal.

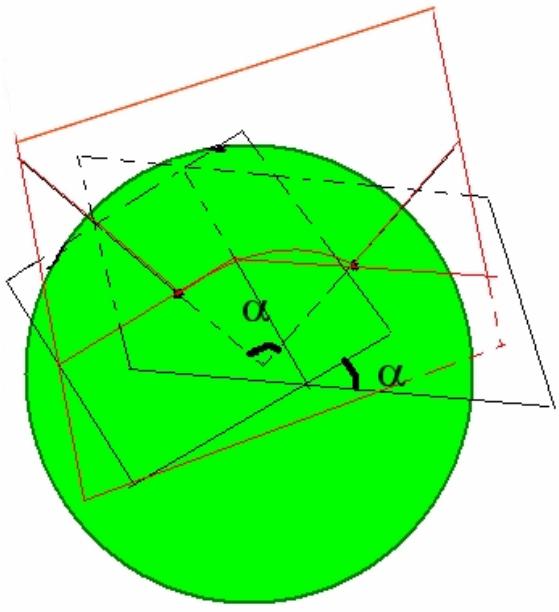
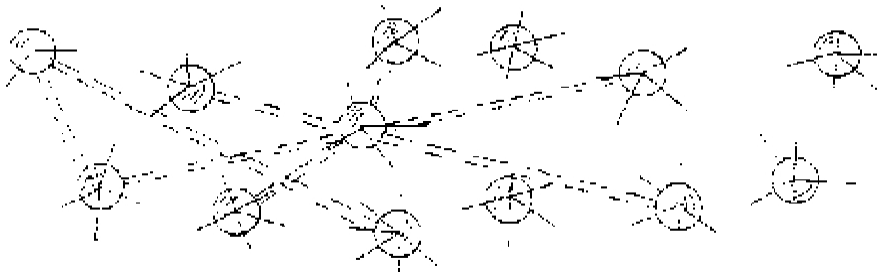



Figura 14

What I am trying to represent in this figure 14 are two planes that would be the "extension" of the "orientations" of the "directions of OAWOO" (re-read TEXT 6) of the two IBOZOO UU that express the two extreme points selected in the two-dimensional spherical space. We see that the two planes generate a beam of planes, which

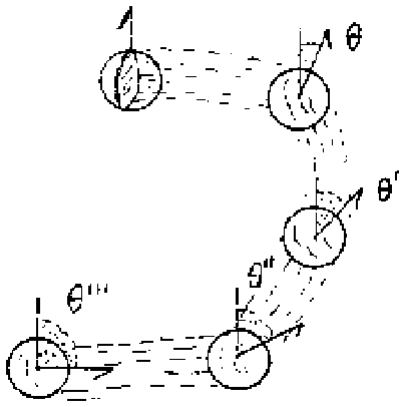
would be all those containing the intersection line of the two planes. This bundle of infinite planes is perpendicular only to one plane (to one direction of planes) that I have represented in red. We see that this red plane determines a maximum circle on the sphere, which would contain the elementary segments defined by the set of connected IBOZOO UU that would give rise to the "straight line" (in red) within the two-dimensional space, between the two points, and which corresponds to a maximum circle on that spherical surface.

**http://www.ummo-sciences.org/fr/D59-2.htm** Although such entities are not visible, for a more educational understanding, you could imagine the WAAM as a huge network of small spheres *(S59-f12)*, each representing an IBOZOO UU *[L]*. They are all of a different color, but within a chromatic set we could select all those that differ from each other by a slight variation in shade (different shades of green, for example).

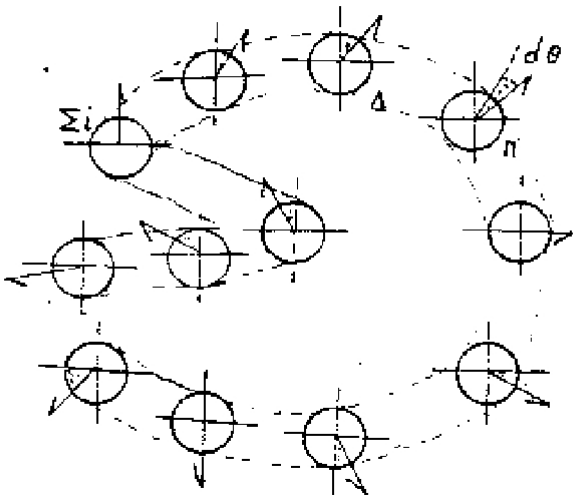


*S59-f12*

Through this didactic metaphor (colored spheres), we would express that the set of IBOZOO UU that differ from each other only by the IOAWOO angle that their respective OAWOO (vector rays) form with one of the IBOZOO UU taken as a reference. **BUT WHETHER ITS FIELD OF ROTATION IS THE HYPERPLANE H (**as we cannot draw a hyperplane, we will assume in image S59- f13 that it is a meridian plane P (The ibozoo uu whose vector rays rotate in another meridian plane will be coded in another color, for example orange.) .




As we have said, if we select all the IBOZOO UU, which we have assigned the color green for educational purposes, that exist in the WAAM, we would observe that, when arranged mathematically, they would form an OXOOIAEE (ANNULAR chain): (59-f14)




*S59-f14*

In other words: having considered **I** $_1$belonging to **W** (subset of **W**), we can establish a one-to-one correspondence between these IBOZOO UU of the OXOIAEE (RING-SHAPED CHAIN) and the infinity of angles that a vector ray can describe in a plane. It is not that such IBOZOO UU are located in the WAAM forming an endless chain and topologically located in an ordered series. No, it is our senses, as we will explain later, that perform this intellectual work of ordering. (A terrestrial example will help you understand better: when you evaluate the amount of money deposited in a bank account, you can, if you wish, represent the dollars, pounds sterling, or pesetas, arranged so that you can count them. But you know very well that this ordering is illusory).

If, as we have done before, we replace the "OAWOO trihedron" with the "real" OAWOO as defined in Text 6. (and in the appendix that follows on page 19), we will have that for two IBOZOO UU we can describe that OAWOO oriented within the green three-dimensional space by the cosines it forms with the three OAWOO of the IBOZOO UU taken arbitrarily as a reference. If we call these two OAWOO u **and** v, respectively, we can represent them as u ≡ (u1, u2, u3) and v ≡ (v1, v2, v3) and the cosine of the angle **α** formed by u **and** v**:**

**u** v= cos (α) = u1 v1+ u2 v2 + u3 v3

If we recall the formula provided by the Ummites in letter D59-2:

$$\cos\vartheta = \frac{\varepsilon[u_0 v_0/\lambda^2 + u_1 v_1 + u_2 v_2 + \cdots + u_n v_n]}{\{[u_0^2/\lambda^2 + u_1^2 + \cdots + u_n^2][v_0^2/\lambda^2 + v_1^2 + \cdots + v_n^2]\}^{1/2}} \qquad \text{(Formula 1)}$$

We see that it coincides for Є= λ= 1

At this point, and before proceeding to generalize what we have seen to real space (for our psyche) constituted by a three-dimensional spherical hypersurface (hypersphere) within a four-dimensional space, oriented in a certain

way within a more general ten-dimensional space, we can clearly see why the Ummites say that the distance between two points should be considered as an angular magnitude. In fact, we could consider two-dimensional entities living within the two-dimensional spherical space generated by the IBOZOO UU in the previous case. If we consider that the sphere is sufficiently large, that is, if the separation between two connected IBOZOO UU (which express a minimum distance, in our Euclidean space terminology) is an extremely small angle—but not infinitely small—we could assume that in the restricted environment of one of these entities, the "world" would appear as a plane, and if those entities were intelligent, they could imagine that the Universe is flat and conforms to Euclidean (two-dimensional) geometry. For them, distances would be scalar magnitudes and they would be unable to imagine that they inhabited a two-dimensional world curved within a three-dimensional space and that, ultimately, distances should be interpreted, in an absolute system, as angular magnitudes. Of course, if they were to intuit a spherical-angular universe, they would still not have imagined that even that geometry could derive from pre-geometric entities that encoded that information based on angular differences between them.

**Subset of IBOZOO UU that define the orientation of a subspace (4D) and, within it, the geometry and metric of a hyperspherical angular space (3D).**

## UXGIGIAAM WAAM

With all of the above in mind, we are now ready to take the final step and understand how pre-geometric entities, the IBOZOO UU, which can nevertheless be oriented in (at least) ten orthogonal directions, are capable of "generating" the three-dimensional space in which we believe we live from differences in orientation (IOAWOO) between them. Of course, this three-dimensional space exists only in our minds, but we see that our reason is capable of discovering a substrate that, although it has nothing to do with that space so dear to our experience, is consistent with it and simultaneously explains "edge" phenomena, which appear as our physical knowledge of the world advances in extremely small or large domains, and which seem to contradict that naive conception of space as absolute data, which is based on a psychological "a priori." Reality is certainly not as I perceive it, but my psychological image can be unambiguously correlated with something "ultimate" that allows my perception to summarize or symbolize its real attributes.

**TEXT 9.-** **http://www.ummo-sciences.org/fr/D75-D81.htm** The "things," the objects of my mental process, are undoubtedly not "as" I perceive them, nor as I treat them by means of a highly complex rationalizing mechanism. Causal relationships are "IN-ME" relationships processed according to an order developed by such mechanisms. A plant is perceived by "me" with characteristics that symbolize its "real" attributes. "My" sensory impression reaching the level of consciousness is undoubtedly an illusion based on external constants.

The advancement of our science (our evolution) highlights these contradictions, these "edge" phenomena in microphysics and cosmology, invalidating our naive conception of a three-dimensional Euclidean space, which makes us increasingly compelled to question that last ghost of our sensory experience, space. Curiously, we are at a point where our science is debating the search for a Grand Unification Theory. All the alternatives proposed seem to call into question the paradigm

of a three-dimensional (or even four-dimensional) scalar space, but we are so attached to our perception that we find it difficult to lift that last veil. String theory (in its various forms) tells us about rolled-up dimensions (always scalar) without explaining what these exotic dimensions are.

We are fortunate to have come across these wonderful and exceptional documents in which some "brothers" from far away have given us vague indications of their vision of space. Curiously, when we realize their meaning, the thought that arises is: "How easy." They had told us everything. Everything was transparent, but the difficult part was to follow the trail of their indications through the fog of our firmly rooted mental archetypes without being carried away by our psychological prejudices.

Let us therefore take the final step.

Let us assume the set of IBOZOO UU. If we select four OAWOO from any of them, we see that they define, within a ten-dimensional space, an orientation. We will see later that each of these 4-dimensional orientations corresponds to a WAAM-UWAAM pair. The remaining six OAWOO will in turn define the orientation of a 6-dimensional subspace perpendicular to the 4-dimensional one (later we will separate time, mass, and associated variables) within the general 10-dimensional space that does not exist, of course, but which would be expressed by the set of orientations of the IBOZOO UU. Each IBOZOO UU can have four of its OAWOO oriented according to a specific 4-orientation and the rest of its OAWOO rotating in a 6-orthogonal space. We can represent the IBOZOO UU as in Figure 18.

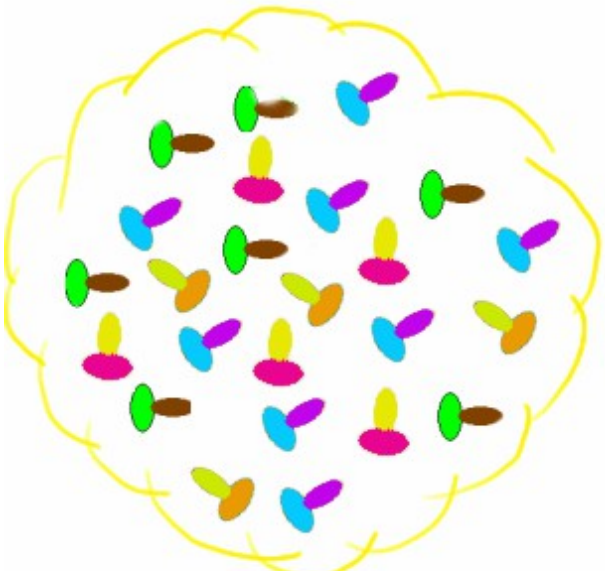


Figura 18

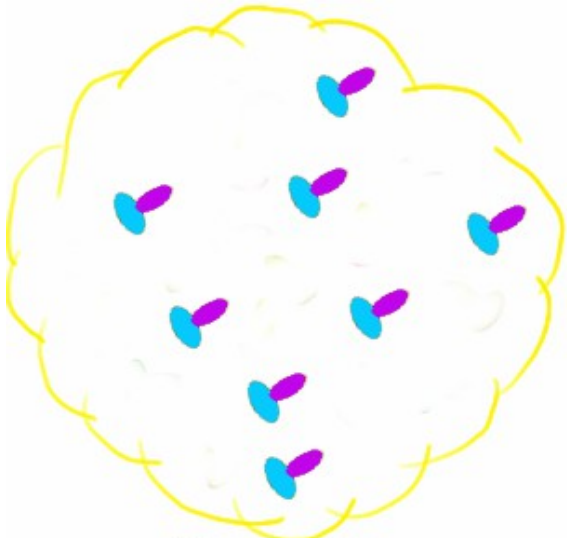


Figura 18-1

I have drawn the parallel subspaces (which will give rise to WAAM-UWAAM pairs) in the same colors, although of course within them the OAWOO are oriented in different ways with respect to each other. If we now select from

all the IBOZOO UU those that have four of their OAWOO oriented according to the direction of a given 4-space, for example the "blue" one (see Figure 18-1), we will have expressed a four-dimensional subspace among all the possible ones in the ten-dimensional space, and if we look at the orientation of the real OAWOO (the OAWOO UXGIGI or OAXOO) that represents the three-dimensional orientation within the four-dimensional space, we will have to "generate" a three-dimensional space "curved in the shape of a hypersphere within the four-dimensional space.

**TEXT 10.-** http://www.ummo-sciences.org/fr/D59-3.htm That is to say, we consider in an IBOZOO UU the four "axes" (OAWOO) (pay attention to the true concept of OAWOO) that we call OAWOO UXGIGII *[L]* because they represent the three-dimensional frame of reference (*S59-f27)*. OAWOO UXGIGII, which in reality do not exist because they are as conventional as a symbol, but they serve the mathematician to fix the position of the real OAWOO.

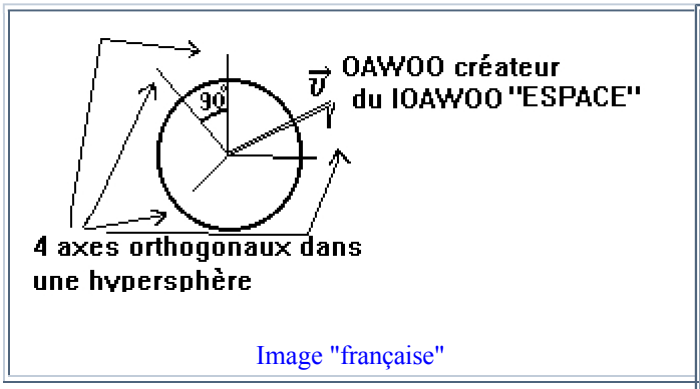



Image "française"

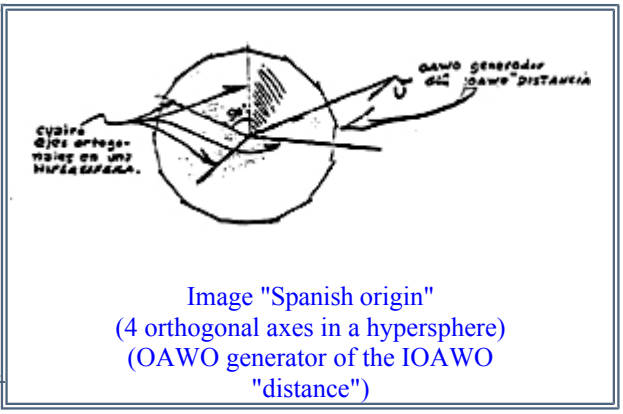


Image "Spanish origin"
(4 orthogonal axes in a hypersphere)
(OAWO generator of the IOAWO "distance")

I have attempted to represent an area of this hypersphere (our three-dimensional space) in Figure 21, where we see that all the "straight lines" are closed lines that describe a circumference to return to the starting point and that we can therefore "measure" angularly, but in a small environment it appears to us as a three-dimensional Euclidean space with scalar distances extending to infinity. Of course, we cannot represent a three-dimensional space curved over a fourth dimension on paper, so Figure 21 is really more of an allegory or metaphor for three-dimensional space seen from an outside perspective.

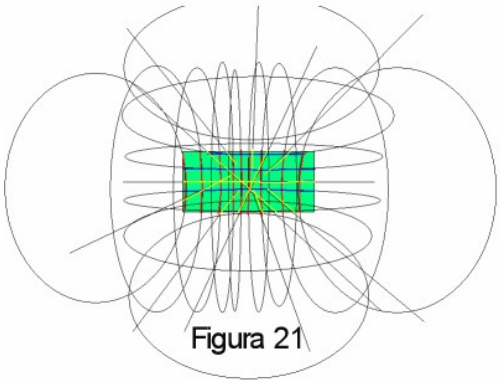


Figura 21

Returning to the representation method used in Figures 13 and 17. To establish a correspondence between the "world of IBOZOO UU" and our mental representation, we will have to assume that the OAWOO UXGIGII that travels through this 4-dimensional space can be oriented in "almost infinite" ways (we will discuss the implications of the fact that the minimum angular differences are discrete later on),

within a four-dimensional space, and the angular difference in the orientation of two OAWOO UXGIGII, given by the chain contained in the hyperplane perpendicular to the beam generated by the extreme hyperplanes (OAWOO UXGIGII), will give us the distance between them. This angular distance has three degrees of freedom, the same as in two-dimensional space, where it had one (Figure 17), and in three-dimensional space, where it had two (Figure 13). See Figure 19 for the current case.

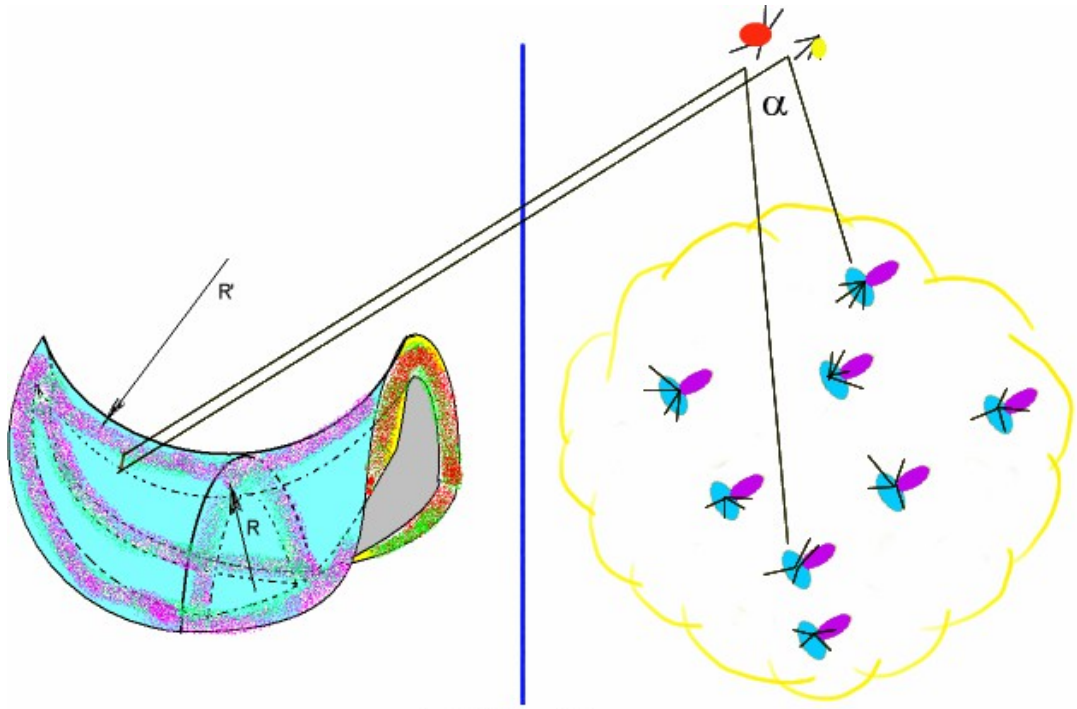



Figura 19

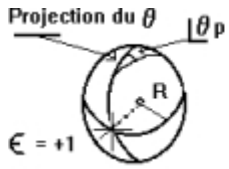
In Figure 19, I have represented two specific IBOZO UU, specifically the OAWOO UXGIGII defined by four of its orientations (re-read Text 10), determine a unique three-dimensional geometry within four-dimensional space (of course, the image is a metaphor, since the projection of a hypersphere cannot be drawn on a plane), this geometry being that of a hypersphere (and in the figure, with double curvature radius). This is again incorrect, since the Ummites have repeatedly told us that a three-dimensional microspace oriented within four-dimensional space is actually given to us by an IBOZOO UU with respect to another "connected" one (re-read Text 6) such that for that section of the ten-dimensional universe there is no IBOZOO UU with its OAWOO UXGIGII separated by a lesser IOAWOO (in a given direction).

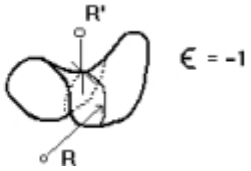
**TEXT 6.-** **http://www.ummo-sciences.org/fr/D59-2.htm** If you replace the concept of OOAWOO (RAYON VECTEUR) from our previous, more simplistic model with that of HYPERPLAN of order N = 4 and if you assume these reference HYPERPLANS not in the IBOZOO UU studied, but in another one linked to it,……..

The real OAWOO, as the Ummites tell us (Text 8), is made up of the meridian section of a hypersphere of order N = 4, which would be a sphere that, for each IBOZOO UU with respect to another connected one, would be oriented (it is difficult to imagine a sphere oriented with respect to others within a four-dimensional space) in all possible directions of four-dimensional space.

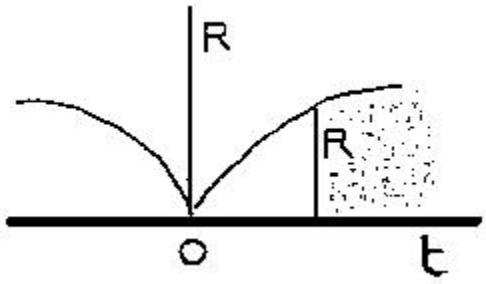
**TEXT 8.- http://www.ummo-sciences.org/fr/D59-2.htm** Supposons donc une SPHÈRE (S59-f17) qui constituerait l'un des hyperplans en nombre infini, méridien d'une HYPERSPHÈRE d'ordre N= 4. (If you are not familiar with this concept, imagine that if we give the name meridian plane to the section of a sphere that passes through its center, namely the sphere of order N = 3, for a HYPERSPHERE of dimensions 4, its section will be precisely a figure of N - I dimensions, that is, a sphere).

To try to visualize this (three-dimensional spheres oriented relative to each other within a 4-dimensional space) we can proceed by analogy, returning to Figure 13, where we saw that the meridian section of the IBOZOO UU by a hypersphere of order N = 3 gave us a plane (a circle) and where we saw that in three-dimensional space these oriented planes (OAWOO UXGIGII of three dimensions) generated a two-dimensional grid equivalent to the geometry of a spherical surface. Now these orientations in 4-dimensional space give us the geometry of a hyperspherical surface (a hypersphere) where the grid of orientations of the IBOZOO UU that define it gives us the three-dimensional "mesh," curved (about one or two centers of curvature) in a four-dimensional space. In Figure 19, I have represented the orientations of the OAWOO UXGIGII as spheres and, to indicate their different orientations, I have drawn them in different colors, one red and one yellow. Whether the curvature of the hypersphere is positive or negative will determine whether the hyperplane-universe (WAAM-UWAAM) is open or closed.




**TEXT 11.- http://www.ummo-sciences.org/fr/D731.htm** In the subcritical mass universe, its radius continues to increase:




[In reality, it is a hyperspace with two curvature radii (hypersphere (-))], its third "death" is an isotropic "crystal" hyperspace with zero density. In the two phases of Time (first decreasing entropy, then increasing entropy ending in infinite entropy), this Universe contained galaxies and negentropic "cells." (Intelligent humanities and OYAA with non-intelligent biological species—when we refer to the latter species, we mean NON-HUMAN, since the term INTELLIGENT has this meaning in this context)

What happens with supercritical mass universes? Their evolution is very different.


Returning to the notation we are using, to represent an IBOZOO UU that has four of its OAWOO contained in the 4-space defined by any four OAWOO of the reference IBOZOO UU, we will have:

$$IU(n) \equiv \begin{Vmatrix} a00 & a01 & a02 & a03 & 0 & 0 & 0 & 0 & 0 & 0 \\ a10 & a11 & a12 & a13 & 0 & 0 & 0 & 0 & 0 & 0 \\ a20 & a21 & a22 & a23 & 0 & 0 & 0 & 0 & 0 & 0 \\ a30 & a31 & a32 & a33 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & a44 & a45 & a46 & a47 & a48 & a49 \\ 0 & 0 & 0 & 0 & a54 & a55 & a56 & a57 & a58 & a59 \\ 0 & 0 & 0 & 0 & a64 & a65 & a66 & a67 & a68 & a69 \\ 0 & 0 & 0 & 0 & a74 & a75 & a76 & a77 & a78 & a79 \\ 0 & 0 & 0 & 0 & a84 & a85 & a86 & a87 & a88 & a89 \\ 0 & 0 & 0 & 0 & a94 & a95 & a96 & a97 & a98 & a99 \end{Vmatrix}$$

As we have seen repeatedly, although an IBOZOO UU can "look" or orient its "faces" in ten orthogonal directions, this does not mean that it is in a ten-dimensional space, since we are talking about degrees of angular freedom with respect to another. A trick that can be useful for avoiding thinking about spatial orientations and mentally visualizing space when talking about the orientations of the OAWOO of an IBOZOO UU is to refer to them as a Hilbert function space. In fact, we know that one of the uses of Hilbert's generalization for vector spaces, known as Hilbert spaces, is that it allows us to represent certain functions as a "vector" or an "orientation" within a function space in which the "directions" of the space basis are defined by periodic elementary functions that are considered orthogonal to each other under a "vector product" operation defined as the integral of the product of those elementary functions. This, which has served mathematicians to extend the power of algebra to mathematical analysis, can serve as a psychological detoxifier that allows us to think of a system of orientations not located in space. In fact, when we think of a Hilbert space defined on a basis of elementary periodic functions, even though we say that they are orthogonal, we do not think of spatial directions but rather we place ourselves on a level of abstraction, in which space (as we conceive it) has no place and therefore we do not need to imagine that this space (of functions) is anywhere. If we imagine that within a Hilbert function space we select a subset of the basis consisting of only ten orientations, we know that we can obtain another basis that defines that same subspace based on linear combinations of the elements of the original basis. All the possible bases that "rotate" (I'll take this opportunity to return to the Ummite terminology) in, or define, that ten-dimensional space will be given by a matrix of coefficients of the type:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| a00 | a01 | a02 | a03 | a04 | a05 | a06 | a07 | a08 | a09 | a10 |
| a11 | a12 | a13 | a14 | a15 | a16 | a17 | a18 | a19 | a20 | a21 |
| a22 | a23 | a24 | a25 | a26 | a27 | a28 | a29 | a30 | a31 | a32 |
| a33 | a34 | a35 | a36 | a37 | a38 | a39 | a40 | a41 | a42 | a43 |
| a44 | a45 | a46 | a47 | a48 | a49 | a50 | a51 | a52 | a53 | a54 |
| a55 | a56 | a57 | a58 | a59 | a60 | a61 | a62 | a63 | a64 | a65 |
| a66 to 67 to 68 to 69 to 70 to 71 to 72 to 73 to 74 to 75 to 76 to 77 to 78 to 79 to 80 to 81 to 82 to 83 to 84 to 85 to 86 to 87 to 88 to 89 to 90 to 91 to 92 to 93 to 94 to 95 to 96 to 97 to 98 to 99 | | | | | | | | | | |

Doesn't this remind us a lot of the representation of any IBOZOO UU with respect to another taken as a reference? Thinking of IBOZOO UU as the set of ten-dimensional bases of a Hilbert function space (but of finite dimension equal to ten) has, as far as I know, no use at the moment other than that it does not bring to mind the idea of space when we think of IBOZOO UU. Indeed, when we evoke the set of all bases of that function space, we do not think of them as located at specific points in space (absurd) and we do not think of them in terms of spatial contiguity or distance. Therefore, I think it is a good mental exercise to think of IBOZO UU as something abstract and prior to space. In any case, the Ummites characterize IBOZOO UU as real entities. In fact, they are the only real entities that exist, so let's forget about Function Spaces and go back to IBOZOO UU.

In letter D59-2, the Ummites conclude by saying:

**TEXT 12.-** http://www.ummo-sciences.org/fr/D59-2.htm Let us suppose, then, a SPHERE (S59-f17) that would constitute one of an infinite number of hyperplanes, meridian of a HYPERSPHERE of order N = 4. (If you are not familiar with this concept, imagine that if we give the name meridian plane to the section of a sphere that passes through its center, namely the sphere of order N = 3, for a HYPERSPHERE of dimensions 4, its section will be precisely a figure of N - I dimensions, that is, a sphere).

You must therefore remember the concept of ANGLE in HYPERSPACE.

**Θ=** Θ **(P,Q)** *(ndt: with inverted circumflex accents on these 4 letters, here and below)* where P and Q are two HYPERPLANS defined by the coordinates
U= ($U_0$ $U_1$ $U_2$ ..... $U_n$) and V= ($V_0$ $V_1$ $V_2$$V_n$ )

These two HYPERPLANS determine a beam Γ. Thus, in this beam Γ there are two HYPERPLANS ⊠∞ and Q∞ which are tangent to the fundamental quadric *(ndt: surface that can be represented by a quadratic equation)* Σ.

The angle Θ**=** Θ **(P,Q)** (where 0< or= Θ< or= P) between these two HYPERPLANS P and Q is defined by :**Θ=** Θ **(P,Q)= 1/2i Log R (P,Q,⊠⊠∞ ,Q'∞ )**

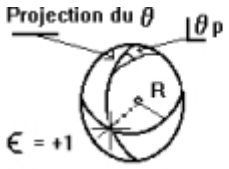
This angle is defined by the equations: (we cannot represent Θ on an image. We only reproduce the projection Θp of Θ. Θp will be expressed by two meridian planes in the case of Θ for an N-space of order N= 4.) *(Editor's note: this last sentence in parentheses is handwritten, probably by the copyist, as are the equations that follow)*

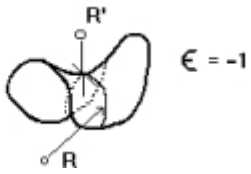
$$\cos \breve{\theta} = \frac{\epsilon\left(\frac{U_0 V_0}{\lambda^2} + U_1 V_1 + U_2 V_2 + \cdots - U_n V_n\right)}{\sqrt{\left(\frac{U_0^2}{\lambda^2} + U_1^2 + \cdots + U_n^2\right)\cdot\left(\frac{V_0^2}{\lambda^2} + V_1^2 + \cdots + V_n^2\right)}}$$

$$\operatorname{sen} \breve{\theta} = \sqrt{\frac{\epsilon\left[\frac{1}{\lambda^2}\sum_{i<j}^{1\ldots n}\begin{vmatrix} U_0 & U_i \\ V_0 & V_i \end{vmatrix}^2 + \frac{1}{2}\sum_{i,j=1}^{n}\begin{vmatrix} U_i & U_j \\ V_i & V_j \end{vmatrix}^2\right]}{\left(\frac{U_0^2}{\lambda^2} + U_1^2 + U_2^2 + \cdots + U_n^2\right)\left(\frac{V_0^2}{\lambda^2} + V_1^2 + \cdots + V_n^2\right)}}$$

*S59-f18*

λ≠ **0** or λ = real number or λ= r imaginary




*S59-f20*

In those where **ε= +1,** we assume a HYPERSPHERE with positive curvature (case of the fictitious model of the IBOZOO UU).

Let us remember the difference between a SPHERE with positive curvature (image 19) and a spherical surface with negative curvature (image 20), which help us understand the concepts of HYPERSPHERE with curvature ε = +1 and ε = -1.

Therefore, when R (P Q, ∞ ∞ )= -1, we consider that the two HYPERPLANS are orthogonal.

If you replace the concept of OOAWOO (RAYON VECTEUR) from our previous, more simplistic model with that of HYPERPLAN of order N= 4, and if you assume these reference HYPERPLANS not in the IBOZOO UU studied, but in another one linked to it, we can imagine three cosine directors that we will call
ΨΞΩ ,
We will define as many other angles (Ψ Ξ Ω) as we define as IOAWOO (DIMENSIONAL ANGLES). Each angle will define the respective values of the three-dimensional space as we conceive it. We assume that an infinitesimal variation in the value of these directional cosines implies a related pair of IBOZOO UU.

Let's recap: What does it mean; hyperplane tangent to the fundamental quadric **Σ** of the beam **Γ**?

These two HYPERPLANS determine a beam Γ. Thus, in this beam Γ there are two HYPERPLANS ⊠∞ and Q∞ which are tangent to the fundamental quadric *(ndt: surface that can be represented by a second-degree equation)* Σ.

Perhaps referring back to Figure 14 (Page 22) will shed some light on

this. I admit that I do not understand where the formula comes from:

**Θ= Θ(P,Q)= 1/2i Log R (P,Q,⊠⊠∞ ,Q'∞ )**

I also don't understand what projection Θp of Θ means:

the projection Θp of Θ. Θp will be expressed by two meridian planes in the case of Θ for an N-space of order N = 4.

Additionally, the Ummites tell us:

Therefore: when R (PQ, ⊠⊠∞ ⊠⊠∞ )= -1, we consider that the two HYPERPLANS are orthogonal.

Perhaps they are pointing out that within the three-dimensional mesh we can choose three orthogonal orientations or, in other words, three HYPERPLANES defined by three pairs of IBOZOO UU (all of them referring in turn to the one chosen first as the reference IBOZOO UU, or acting as the "start" of the three orthogonal directions) that would constitute the reference trihedron.

Even accepting this way of selecting the reference trihedron of the "three-dimensional space as we conceive it," I admit that I do not understand where the direction cosines **cosΨ, cosΞ, cosΩ** come from or how they are calculated, and therefore I do not understand how the angular distances (IOAWOO dimensional) **Ψ, Ξ, Ω** are obtained.

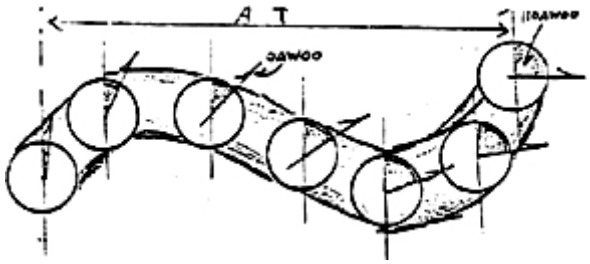
If you replace the concept of OOAWOO (VECTOR RAY) from our previous, more simplistic model with that of HYPERPLAN of order N= r 4, and if you assume these reference HYPERPLANS not in the IBOZOO UU studied, but in another one linked to it, we can imagine three direct cosines that we will call
⊠⊠⊠ψ **,** ⊠⊠⊠Ξ **,** ⊠⊠⊠Ω ,
We will define as many other angles (Ψ Ξ Ω) as we define as IOAWOO (DIMENSIONAL ANGLES). The angles will each define the respective values of the three-dimensional space as we conceive it. We assume that an infinitesimal variation in the value of these direct cosines implies a linked pair of IBOZOO UU.

So far, this is the physical space UXGIGIAM WAAM.

## The Magnitude of Time

The Ummites tell us that the "dimension" of time, or rather the "quantity of time elapsed," like the other fundamental magnitudes we deal with, is ultimately nothing more than an angular difference (IOAWOO) expressed by the OAWOO of two IBOZOO UU that rotate in a two-dimensional hyperplane perpendicular to the four-dimensional subspace that expresses what we know as our "three-dimensional space."

**TEXT 13.-** http://www.ummo-sciences.org/fr/D59-3.htm We deliberately move away from the central question: we define a time interval ΔT as a succession of IBOZOO UU whose IOAWO differ from each other by constant quantities *(S59-f26)*




*S59-f26*

That is to say, we consider in an IBOZOO UU the four "axes" (OAWOO) (pay attention to the true concept of OAWOO) that we call OAWOO UXGIGII *[L]* because they represent the three-dimensional frame of reference *(S59-f27)*. OAWOO UXGIGII, which in reality do not exist because they are as conventional as a symbol, but they serve the mathematician to fix the position of the real OAWOO.

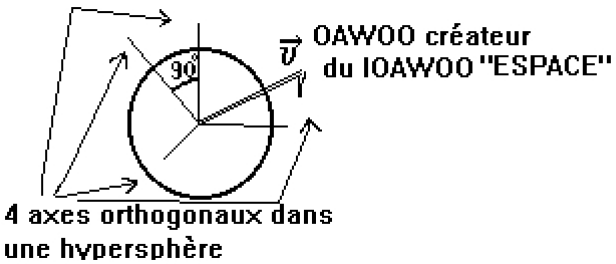
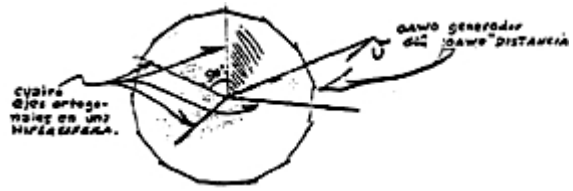



Image "French"

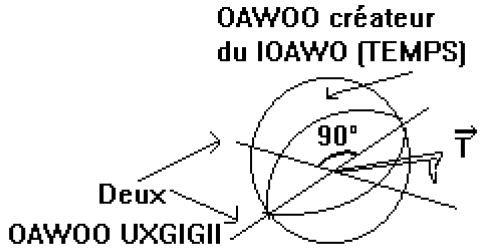


"Original Spanish" image
(4 orthogonal axes in a hypersphere)
(OAWO generator of the IOAWO "distance")

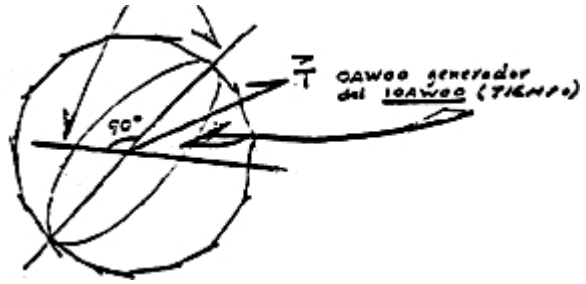
*S59-f27*

If the actual OAWOO (U fléché) oscillates within this ideal frame, imagine now a new reference system of two OAWOO UXGIGII, each forming a 90° angle with the four previous ones (see S59-f27).

This new frame of reference for a real OAWOO (**T**) and those previously defined define SPACE and TIME *(S59-f28)* respectively:

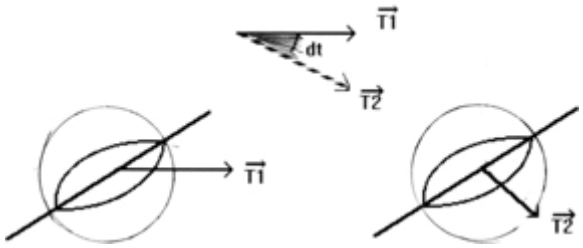



French image




"Spanish" image

Note that the OAXOO (RECTANGULAR AXES) defining SPACE AND TIME have distinct degrees of freedom. The first can travel through IOAXOO (Angles-Space) in the three different orientations corresponding to the three typical dimensions of SPACE, the second being "constrained" to move on a single plane.




*S59-f29*

Two IBOZOO UU *[L]* whose OAXOO axes T1 and T2 differ by an angle such that there is NO other IBOZOO UU in WAAM whose T is located between the two, will define the smallest TIME interval. We will call this interval UIWIIOO (INSTANT) (59-f29).

The same idea that the two-dimensional subspace in which the OAXOO time "rotates" is orthogonal to the orientation of the four-dimensional subspace in which the OAXOO that defines the three-dimensional space we know "rotates" is expressed in the following paragraph:

**TEXT 14.-** **http://www.ummo-sciences.org/fr/D59-2.htm** In particular, this magnitude TIME is of singular importance to us. In the next few typed pages that we will give you, we will tell you more about this peculiarity. We will show you, for example, that Time can be likened to a series of IBOZOO UU whose axes are oriented orthogonally with respect to the OAWOO (RAYONS VECTEURS) that involve distances, which may give rise, if the inversion of its axes is appropriate, to an observer in their new frame of reference perceiving as distance what was measured as a time interval in the old reference system.

If we return to our mathematical representation of an IBOZOO UU with respect to another reference, we will have that for an orientation of the OAWOO UXGIGII that encodes normal space (in which we believe we live) this is for a given orientation of the 4-dimensional subspace within the almost infinite possibilities in the ten-dimensional space, and for another orthogonal orientation of the two-dimensional subspace in which the OAWOO time rotates, the matrix of director cosines of an IBOZOO UU with respect to the reference one will be expressed as follows:

$$IU(n) \equiv \begin{Vmatrix} a00 & a01 & a02 & a03 & 0 & 0 & 0 & 0 & 0 & 0 \\ a10 & a11 & a12 & a13 & 0 & 0 & 0 & 0 & 0 & 0 \\ a20 & a21 & a22 & a23 & 0 & 0 & 0 & 0 & 0 & 0 \\ a30 & a31 & a32 & a33 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & a44 & a45 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & a54 & a55 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & a66 & a67 & a68 & a69 \\ 0 & 0 & 0 & 0 & 0 & 0 & a76 & a77 & a78 & a79 \\ 0 & 0 & 0 & 0 & 0 & 0 & a86 & a87 & a88 & a89 \\ 0 & 0 & 0 & 0 & 0 & 0 & a96 & a97 & a98 & a99 \end{Vmatrix}$$

Let's analyze what we have. From the countable infinite set of all possible IBOZOO UU, we have selected those that have four of their OAWOO

contained in a 4-dimensional subspace formed by any four OAWOO of the reference IBOZOO UU. Each of the IBOZOO UU that meets this condition defines an "orientation" with respect to another connected IBOZOO UU within that four-dimensional space, and the set of them defines the "grid" of a three-dimensional spherical hypersurface (with double or single curvature) within that 4-dimensional subspace. This is what our senses encode as space. We also have that in a two-dimensional subspace orthogonal to the four-dimensional one, the OAXOO representing time rotates. Finally, we are left with another four-dimensional subspace orthogonal to the other two, in which we could define, by angular differences, in a similar way to how we have done in the one that represents space, three new magnitudes orthogonal to each other. These could perhaps encode what we understand as mass, electric field, and magnetic field. Before entering into this topic, let us delve deeper into the magnitude of time. So far, we have been saying that the set of OAWOO UXGIGII, the "orientations" within four-dimensional space, generates the fabric of space as we know it, but if we now also take into account the magnitude of time, that is, the magnitude of IOAWOO "τ," we see that for each increase in angle "Δτ" we have all the IBOZOO UU that define space. That is, if we consider all the IBOZOO UU that are isochronous with the reference one, that is, that do not differ in the time magnitude (we will not worry for the moment about the second four-dimensional subspace, which, as we have seen, could represent mass and associated quantities), we can represent them by:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| a00 | a01 | a02 | a03 | 0 | 0 | 0 | 0 | 0 | 0 |
| a10 | a11 | a12 | a13 | 0 | 0 | 0 | 0 | 0 | 0 |
| a20 | a21 | a22 | a23 | 0 | 0 | 0 | 0 | 0 | 0 |
| a30 | a31 | a32 | a33 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | ? | ? | ? | ? |
| 0 | 0 | 0 | 0 | 0 | 0 | ? | ? | ? | ? |
| 0 | 0 | 0 | 0 | 0 | 0 | ? | ? | ? | ? |
| 0 | 0 | 0 | 0 | 0 | 0 | ? | ? | ? | ? |

We see that this set of IBOZOO UU "generates" a three-dimensional space (hyperspherical surface) within the selected four-dimensional orientation.
Now suppose that we consider an IBOZOO UU to be "temporally connected" to the reference one, that is, an IBOZOO UU such that the orientations of all its OAWOO are identical to those of the reference one, but such that in the two-dimensional "Time" subspace, the OAWO is displaced by a minimum increment of IOAWOO, ⊠⊠τ." We will have that if we now consider all isochronous IBOZOO UU, we can represent them as follows:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| a00 | a01 | a02 | a03 | 0 | 0 | 0 | 0 | 0 | 0 |
| a10 | a11 | a12 | a13 | 0 | 0 | 0 | 0 | 0 | 0 |
| a20 | a21 | a22 | a23 | 0 | 0 | 0 | 0 | 0 | 0 |
| a30 | a31 | a32 | a33 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | $cos\tau$ | $sin\tau$ | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | $-sin\tau$ | $cos\tau$ | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | ? | ? | ? | ? |
| 0 | 0 | 0 | 0 | 0 | 0 | ? | ? | ? | ? |
| 0 | 0 | 0 | 0 | 0 | 0 | ? | ? | ? | ? |
| 0 | 0 | 0 | 0 | 0 | 0 | ? | ? | ? | ? |

This set of IBOZOO UU also defines a three-dimensional universe within a four-dimensional orientation, which in turn is one of the infinite possibilities in a ten-dimensional space. There is nothing in this universe that distinguishes it from the universe one instant before. There is also no singularity in its three-dimensional fabric, and therefore, since it lacks information, our senses would interpret this universe as non-existent.

Let us therefore look at the conjugated four-dimensional subspace that encodes space and try to understand how the angular differences between the OAWOO that "rotate" in that space encode differentiated information for each section of space and for each section of time, thus giving rise to what our senses interpret as mass, electric field, magnetic field, movement, etc.

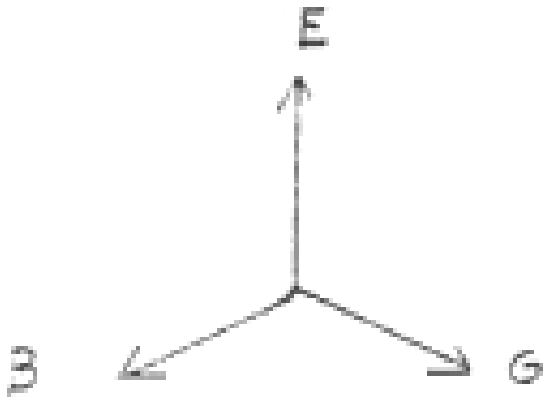
## The Magnitude of Mass and Associates

**NOTE:** I would like to clarify a number of points before continuing:

- The Ummites have given us very little information about how mass and associates are encoded in angular differences, and therefore my reconstruction is highly speculative.
- Although I have a university degree in physics, I have not been involved in theoretical physics for more than 20 years. Because of this, many of the concepts I will be discussing from now on may be unclear or incorrect.
- Nevertheless, I believe I have glimpsed within the IBOZOO UU theory a path that could allow us to connect with both quantum physics and relativistic physics.
- If anyone (or anyone) more knowledgeable than I am in these fields is interested in my view of the IBOZOO UU theory, I would be very honored to collaborate with them.

Let us now consider the remaining four-dimensional space, which is orthogonal to the space coder and the time coder. We see that in this four-dimensional space, following the same line of reasoning we have used so far, we can define angular distances according to three orientations that are orthogonal to each other and, of course, orthogonal to those of space and time. According to letter D57-3, we know that mass, electric field, and magnetic field are nothing more than angular differences according to three directions that are orthogonal to each other and, in turn, orthogonal to the classical directions of space.

**TEXT 15.-** http://www.ummo-sciences.org/fr/D57-3.htm There is another easily observable characteristic: the very strong magnetic field that appears around the axis of symmetry of our ships (and perhaps also in other spacecraft belonging to other extraterrestrial beings). This magnetic field, which reaches many thousands of WEBBER/m2, is not, as one might imagine, an indication that our propulsion system is magnetodynamic. This strong magnetic induction is simply the axial reversal, at an angle of 90°, of the intensity of the electrostatic field produced by a powerful generator whose function is to reverse the subatomic particles of the ship and its passengers. (Remember that the vectors representing gravitational, electrostatic, and magnetic fields form a triad within multidimensional space. The three fields are in fact identical. It is our illusory physiological perception that attributes a different nature to them depending on their orientation).




Let's imagine a set of connected IBOZO UU, that is, they differ from each other in their space-encoding OAWOO (OAWOO UXGIGII) by a minimum IOAWOO such that they all differ by the same IOAWOO "$\tau$" of time, with respect to the reference one. These IBOZOO UU will encode a tiny region of space and belong to an isochronous section of (almost) continuous space-time. Let me explain this a little better. I call continuous space-time (with the caveat that this fabric is not perfectly continuous in the mathematical sense) the three-dimensional space fabric and time in ten-dimensional space. This fabric is formed by an almost continuous "succession" of three-dimensional hyperspherical surfaces that differ from each other by an insignificantly small angular distance (how difficult it is to escape the term "infinitely small" so common in our mathematics), forming the fabric that we will call c-continuous space-time. Well, returning to the thread, if we consider a very small environment within an isochronous section of the universe and look at the IBOZOO UU that encode it, we may find that in four-dimensional space (which I will now call mass-encoding space) the orientations of the OAWOO of all of them are aligned in the same direction, that is, in that insignificant environment of space and for a given instant of time, there is no "mass" singularity. We could express this by selecting one of the aforementioned microgroup as the reference IBOZOO UU, as follows:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1-Δα0 | Δβ0 | Δγ0 | Δδ0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Δα1 | 1-Δβ1 | Δγ1 | Δδ1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Δα2 | Δβ2 | 1-Δγ2 | Δδ2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Δα3 | Δβ3 | Δγ3 | 1-Δδ3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

This would represent a small volume of an isochronous section of the three-dimensional WAAM in which, for each of the pairs of IBOZOO UU

coders of an insignificantly small section, the angular distances according to the mass directions and associated directions would be zero. If we were to ignore the rest of the space (or better still, if for the purposes of this exercise we were to assume that the same thing happened in the rest of the isochronous space), there would be no mass singularity for any section of the space represented by those IBOZOO UU.

But let us suppose that an elementary particle suddenly appears. We would suddenly find that for one of the IBOZOO UU of that set, THERE IS AN ANGULAR DIFFERENCE ACCORDING TO ONE OF THE DIRECTIONS OF THE MASS COMPLEX WITH RESPECT TO THE REST OF THE IBOZOO UU (mathematically, we could assimilate this to a Dirac "δ" function, which, as we know, is such that $\delta(x_0)$ takes the value $\delta(x_0) = 1/\varepsilon$, for all ($x_0$ - ε) < x < (⊠0+ ε) and $\delta(x0) = 0$ for any other value of x). As I understand it, THAT ANGULAR DIFFERENCE IS WHAT OUR SENSES INTERPRET AS MASS, and we will consider that particle to be more massive the greater the IOAWOO that forms the OAWOO of that IBOZOO UU with respect to the OAWOO of the rest of those connected IBOZOO UU and that "express" the points that are around them.

**TEXT 16.-** **http://www.ummo-sciences.org/fr/D57-1.htm** By studying the true nature of the corpuscles or entities that you call PROTONS, MESONS, NEUTRINOS, ELECTRONS, etc., we have discovered that they are actually small deformations of Space, wrongly called Three-dimensional, along the axis of other dimensions. Imagine a sheet spread out; this would be the comparison of three-dimensional space, which we would call empty. If we now make a small dent or deformation in the sheet, this dent could represent the mass of the proton or sometimes the MUON, depending on the axis along which the deformation occurred, as well as the size or depth of the dent.

The question we can now ask ourselves is: OK. According to the Ummite documents, this seems to be the interpretation of mass, but how do the other IBOZOO UU (including those in our brain) "know" that a singularity exists there? Or, in other words, how does this situation evolve over time? As we are told repeatedly, the behavior of microphysical elements is not governed by any law. They are subject only to chance.

**TEXT 17.-** **http://www.ummo-sciences.org/fr/D33-1.htm** To try to provide a satisfactory explanation, we must not forget that the components of the WAAM (Universe) can be divided into two dimensional categories.
MICROPHYSICAL: enjoying the principle of INDETERMINACY, that is, not subject to any law.
MACROPHYSICAL: subject to the mathematical-statistical laws that govern its inflexible DETERMINISM.

In another passage of D33-2, they insist that all physical laws without exception are statistical in nature. Our physics has known this well for some time, although what we call statistical behavior is very different when we talk about the behavior of a system made up of one or a small number of particles, in which case statistical distribution evokes the random distribution of the measured quantity (position, velocity, etc.). while those same statistical mathematical laws will predict inflexible (deterministic) behavior for systems consisting of a very large number of components.

**TEXT 18.-** http://www.ummo-sciences.org/fr/D33-2.htm The OEMII (PHYSICAL BODY of MAN) as a macrophysical entity, respects the same physical laws (all without exception of a statistical nature) as any other body in Nature, such as a rock.

What does it mean, in this context, that microphysical elements follow a random behavior?

What I understand is that for an isochronous section of the WAAM insignificantly close to the previous one (this means that we consider all the defining IBOZOO UU of the WAAM, but all of them are shifted by a minimum angle in the "time" direction with respect to the reference IBOZOO UU), the angular distances, IOAWOO, encoding mass, which in the previous instant had the discontinuous structure described above, will now have adopted a statistical distribution configuration. Let's look at this in the following figures, in which, to simplify the drawing, I focus only on one linear direction within three-dimensional space. Let's look at this step by step. First, let's look at Figure 20. What I have tried to represent is: To the right of the figure, and following the same convention as always, we have the "world of IBOZOO UU." These, of course, are not located anywhere, since they are pre-geometric. They are prior to space, time, mass, and any other dimension. In fact, as the Ummites tell us and we have repeated so many times, it is the angular distance IOAWOO according to a hyperplane (of 2, 3, or 4 dimensions, depending on the case) that encodes the dimension that our consciousness interprets as mass, time, or distance. Returning to Figure 20, I said that on the right of the figure I represent the world of the IBOZOO UU. Angular relationships are established between their orientations, and so I have painted in blue the orientation of the subspace in which the OAWOO "rotate," encoding the distances of what we understand as space. In yellow, I have drawn the orientation of the two-dimensional space in which the time OAWOO rotates, and in red, the four-dimensional subspace, orthogonal to each of the previous two, in which the OAWOO coders (by angular difference between them) of the mass dimension and associated dimensions are located. I have denoted the IBOZOO UU taken as a reference with an "R." This "I.U. "R" defines, based on four of its OAWOO, the orientation of the 4-dimensional subspace that encodes Conventional Three-Dimensional Space. Two other OAWOO define the plane where the OAWOO Time "rotates" and, finally, the other four OAWOO define the four-dimensional space in which the dimensions of mass, electric charge, and magnetic moment will be expressed. With regard to this IBOZOO UU "R," we see in the drawing that all the other IBOZOO UUs are isochronous, that is, they all have the OAWOO UXGIGII "time" offset by the same angle (IOAWOO) with respect to I.U. "R" (they all have the OAWO time parallel). If we look at the blue subspace, we see that the OAWOO UXGIGII rotates smoothly within the direction of a hyperplane that cuts the three-dimensional space according to a "maximum sphere" (in the drawing, the minimum angle of separation between each pair of two connected IBOZOO UU is exaggerated, as is logical, in order to appreciate the difference). In the left half of Figure 20, I have tried to represent the insignificantly small sections that would result from each pair of connected IBOZOO UU. Thus, the insignificantly small section 1-2 is expressed by the (minimum) angular distance between the OAWOO UXGIGII of I.U. 1 and 2. We see that in the "mass" direction the angular difference is zero and therefore we would say that in that spatial section the coded mass is zero. When we reach the IBOZOO UU denoted by "$x_{(0)}$" (IBOZOO UU "5"), we see that the OAWOO according to the mass direction is separated by a

angle (IOAWOO) $\mu_0$ with respect to the two connected on each side according to that hyperplane

of rotation (according to that spatial direction orthogonal to those of space and time).

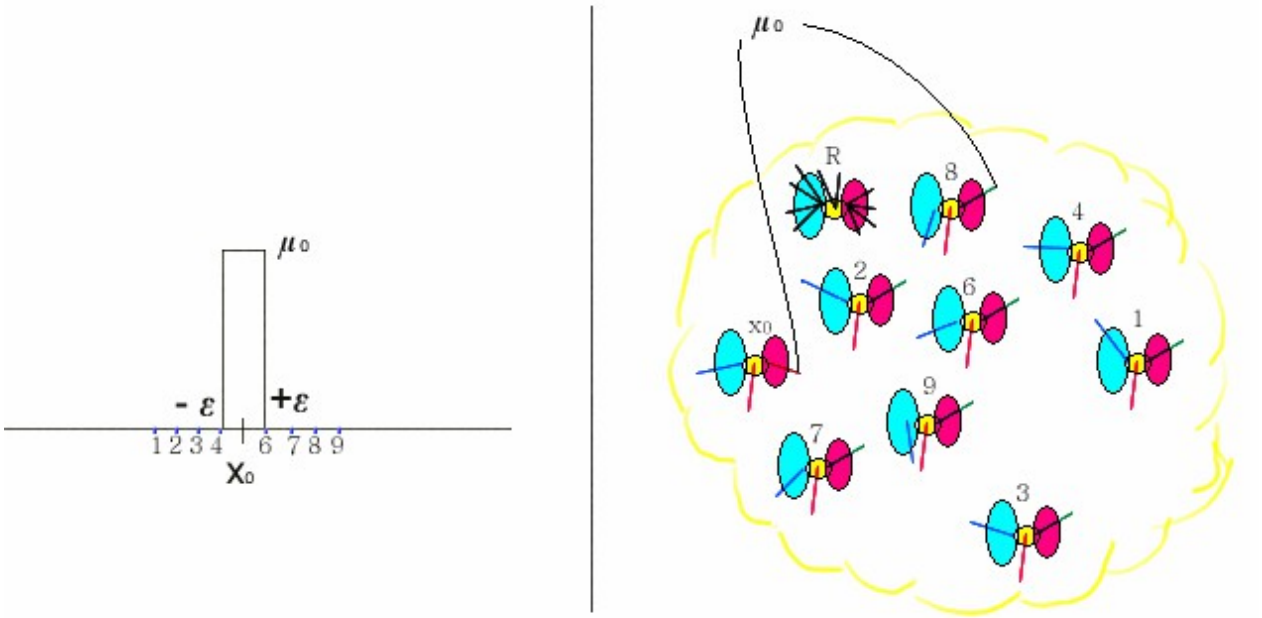



Figura 20

However, if we now consider the isochronous section of the universe insignificantly close to the previous one and within it this same sector of classical three-dimensional space, we will have, according to texts 17 and 18, that this situation must evolve "randomly," that is, we must find in the new section of space-time that the angular distribution according to the mass direction must adopt a "profile" of the type "probability distribution function".

**TEXT 19.-** http://www.ummo-sciences.org/fr/D58-4.htm (Les bases biogénétiques du Cosmos) …/… Such confusion arises from different physical conceptions because we conceive subatomic particles as simple changes of axis in a multidimensional network, linked to a probabilistic function.

This is consistent with the findings and criteria of quantum physics, which, given the impossibility of simultaneously determining with unlimited precision the position and momentum of an elementary particle, "decides" to work with probability distribution functions of presence. To find the agreement between the consolidated achievements of our quantum physics and the Ummite conception of IBOZOO UU, and ultimately to determine what type of angular distribution function the mass-encoding IOAWOO could adopt, we can refer to the following criteria:

- The angular distribution according to the "mass" direction for that group of IBOZOO UU for an instant $\boxtimes\tau$ later must follow a random probability statistical distribution pattern.
- It would be desirable for this statistical distribution to take a form that satisfies the De Broglie equation for "matter waves": $\lambda = 2\pi/k$
- It would be desirable for it to comply with the description of the propagation of matter waves in a vacuum given in the Klein-Gordon equation:
  $\partial^2/\partial t^2 [\Phi(x,t;p)] - \nabla^2 \Phi(x,t;p) = -m^2 \Phi(x,t;p)$

- Finally, it would be interesting for the function expressing the angular displacement distribution (IOAWOO mass in each IBOZOO UU) to satisfy Schrödinger's equation for a free particle: $i\hbar\partial/\partial t\ [\ \Phi\ (x,t)] = -\ \hbar^2/2m[\partial^2/\partial x^2[\ \Phi\ (x,t)]]$

A statistical distribution function of the IOAWOO angular displacement that would satisfy the above requirements would be, for example, that defined by a linear sum of plane waves. We must not forget that the Ummites attribute a transcendental character to the function sin 2π (although it seems clear that this expression is missing something and that it
they are referring to sin 2πx or sin 2πx/L). We know that: $\exp(\pm i2\pi x/L) = \cos(2\pi x/L) \pm \sin(2\pi x/L)$ is
the general equation of a plane wave function of λ= L. In general, we could assume that this distribution function of angular displacement according to the mass direction could be a sum of plane waves of the type:

$$\Phi(\xi,\tau) = \int \mu_0 \exp[i(\xi - \omega\tau)]d\omega$$

A function of this type could be represented graphically in an approximate form as in Figure 21, where we see that the distribution of the IOAWOO mass that was previously restricted to the vicinity of the IBOZOO UU "x0" now extends to "infinity."

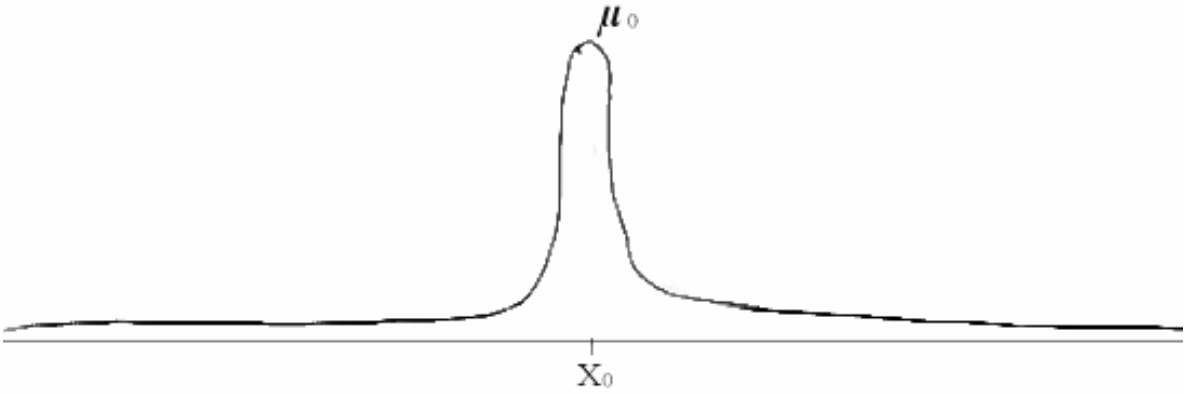



Figura 21

However, although this statistical distribution (or a similar one) may appear to meet the above criteria, we must now introduce a fundamental characteristic of IBOZOO UU, or rather of the minimum IOAWOO that each IU can form with another connected one. We know from the ummites that this angle cannot be as small as we want. Mathematically speaking, this means that the space and time grids (and, of course, the IOAWOO of the mass complex) are not continuous but discrete, or in other words, they are quantized.

## IBOZOO UU - Notion of continuous and discrete

Before continuing with the evolution of the magnitude of the IOAWOO mass, I will digress and discuss what appears to be a fundamental characteristic of the structure of the WAAM WAAM. We have seen repeatedly that the Ummites tell us that all the information that our senses and our brain encode as coming from

ghosts called time, space, and mass and their associates ultimately derives from angular differences between the orientations that these mysterious entities called IBOZOO UU can adopt with respect to each other within a space of ten-dimensional freedom of orientation. The question we might ask ourselves is, can these angular differences be as small as we want?
Can these differences be infinitely small (in the mathematical sense)? The Ummites repeat to us over and over again that they cannot. The angular differences that form the OAWOO of the different IBOZOO UU between each other can be surprisingly small but not infinitely small (without a limit of smallness). This characteristic surprises us because we have based all our mathematics, especially differential calculus, on the notion of continuity. The "space" that our mind conceives as a receptacle for "things," for "matter" (concepts that are really vague when you focus on them) is expressed in our mathematics as being "continuous." The notion of continuity has been introduced into our mathematics by the operation of passing the limit, which has given access to differential calculus.

On this subject of Continuous and Discrete, I recommend reading the work of Vincent Morin at: **http://www.ummo-sciences.org/docs/RelContDiscr.pdf**

It was, as we know, the mathematician Georg Cantor (1845–1918) who first focused on the problem of the abysmal difference between different types of infinity. Specifically, he first distinguished between countable infinities, Aleph-0 (for example, the entire series of Natural Numbers "N," as well as that of Rational Numbers "Q," etc.) and continuous infinities (such as that formed by the set of Real Numbers "R"). Interestingly, the Ummites tell us that the set of IBOZOO UU can be put in correspondence with the series of natural numbers "N":

**TEXT 20.-** http://www.ummo-sciences.org/fr/D59-2.htm **THE CONCEPT OF IBOZOO UU**
The WAAM we know is a CONNECTED SET (AYUU) or NETWORK of ibozoo uu such that if we identify this set with an ordered series of natural numbers: N tends towards infinity. (or "becomes"? Written: N > infinity).

Therefore, we see that the set of IBOZOO UU cannot be mapped onto the set of real numbers "**R**." From this, from the fact that the set of IBOZOO UU cannot be put into correspondence with the continuum of points, it immediately follows that the angle (IOAWOO) formed between two OAWOO of any two IBOZOO UU cannot be "infinitely small" o r , in other words, "unlimitedly small." (this statement would require rigorous proof to be accepted, but I will not provide it here. I leave it to anyone who is interested and capable of doing so to develop this proof, which is otherwise quite obvious). In short, to say that the set of IBOZOO UU can be put into correspondence with the series of Natural Numbers "N" and that the IOAWOO are quantified is the same thing.

The acceptance that the fabric of reality is discontinuous in any of its dimensions may at first glance appear to be a shortcoming, but as we will see later, it is this characteristic that allows physical laws and fundamental constants (including the speed of light) to exist.

The fact that the set of IBOZOO UU is countable allows the Ummites to define a "threshold" in the real world (in the set of WAAM WAAM) for the infinite quantity. As we are told in Text 21, they distinguish between mathematical infinity and physical infinity. They tell us that they treat any quantity of the order of 10exp ($10^{30}$) as physical infinity.

**TEXT 21.-http://www.ummo-sciences.org/fr/D731.htm** We would be surprised to observe between these filament bundles high-energy quanton flows propagating at infinite speed (It should be noted that the mathematical concept of INFINITY ¥ has a somewhat different meaning here in the physical world. An example might illustrate what we mean. A value such as $12.(^{n)}$ taking "n" to be any value greater than a quintillion [*Ndt: 10.$^{30}$ ]* - approximately - will be considered by UMMO physicists as AIGIOXAA "infinite"; a concept different from AIGIOXUOO (mathematical infinite) for which "n" would have a value greater than any you could imagine).

I have seen on the ummo.science list that attributing a finite value to infinity (which for us is a valuable concept from a mathematical and especially metaphysical point of view), no matter how large, has caused some disappointment. I would like to comment on this. In our daily lives, we are used to moving, regardless of the physical magnitude we are referring to, within what seems to us to be a very wide numerical range for that magnitude. However, we are not aware of the extent to which this is false and that the numerical range of the magnitudes we deal with is insignificantly small compared to the number that expresses physical infinity for the Ummites. For example, in letter D59-4, the Ummites tell us:

**TEXT 22.- http://www.ummo-sciences.org/fr/D59-4.htm** Not only is Energy quantified (on this subject, Earth physicists are not mistaken), but so is the MAGNITUDE "DISTANCE." It is not possible to distinguish a "meaningful quantity" of a dimension less than 12-13 cm (angular relationship between two "CONNECTED" (LINKED) IBOZOO UU).

Let's see what this minimum distance means, this length, in relation to the length of our Universe.

- $^{12-13} \simeq 10^{-14}$cm
- 1 cm= $10^{14}$ qd (I call "qd" "quantum of distance")
- 1 km= $10^{5}$ cm= $10^{19}$ qd
- 1 second light= $3 \cdot 10^{5}$ Km= $3 \cdot 1^{0(24)}$ qd
- 1 light year= $3 \cdot 10^{7}$ light seconds= $9 \cdot 1^{0(31)}$ qd$\simeq 1^{0(32)}$ qd
- Our universe is estimated to be approximately 14 billion years old ($14 \cdot 10^{9}$ years). If we could see the birth of the universe, that is, the point furthest from our present, we would have to be at: $1.4 \cdot 1^{0(10)}$ AL. $\simeq 1^{0(42)}$ qd
- If we now assume that our universe will last a million ($10^{6}$ ) times longer than it has lasted so far (I hope I won't be around to see it), the maximum distance of the universe would be: Max. Dist. = $10^{48}$ qd

Now let's imagine a Hyperphoton that travels that Max. Dist.Max. in a minimum time interval (I call a quantum of time "qt"), that is, $v_{Hf}$ = $10^{48}$ qd/qt, we would have that, according to the Ummites' criteria of what is physical infinity (10exp ($10^{30}$ )), this speed would be considered EXTRAORDINARILY SLOW.

CURIOSITIES: if we consider that the radius of a proton—assuming it makes sense to talk about this—is approximately 1 Fermi, which is $10^{(-13)}$cm, or about 10 times greater than the "quantum of distance" indicated by the Ummites, we know that the mass of a proton is approximately 1800 times the mass of an electron. If we consider between

$p^+$ ,and $e^-$—even though it is completely out of context—a volume-type relationship ($V \sim d^3$), we see that the electron must have a dimension in the range of the distance quantum.

We also know that the total number of particles (electrons, protons, neutrons) in the universe is speculated to be in the range of 10exp (80). This is also a ridiculous figure compared to 10exp ($10^{30}$), which is the figure that the Ummites give us as sufficient to consider a quantity as infinite within the real WAAM WAAM.

Infinity is a notion that has attracted the attention of man since the concept was formalized in mathematics. Georg Cantor is, among others, one of our mathematicians who has devoted the most time to reflecting on its meaning. Although it is possibly anecdotal, part of his mental imbalances are attributed to vertigo of infinity (in addition to the bitterness and persecution he was viciously subjected to by one of his teachers, Kronecker). In modern times, two quantities have been named that mathematicians consider almost incomprehensible to the human mind. I invite you to take a look in this direction:

**http://www.eleves.ens.fr:8080/home/madore/math/infinity.pdf** In this work by David A. Madore, entitled **"L'infini en** Mathématiques" (Infinity in Mathematics), we are introduced to GOGOL and GOGOLPLEX:

- $10^{100}$ (a "gogol," or a "one" followed by one hundred "zeros") is finite. This number is already quite large, and exceeds most of the numbers used in physics—for comparison, the age of the universe is approximately 15 billion years, or 5 x 10exp (17), and the total number of particles in the observable universe, including dark matter, is on the order of 10exp (80), or less than one billionth of a billionth of a gogol. The correct French term for "a gogol" is "dix mille hexadécillions"; the term "centillion" exists in French and refers to the number 10exp (600).
- 10exp ($10^{100}$), which we will write as $10 \uparrow 10 \uparrow 100$ for simplicity. In other words, the number that would be written as a "one" followed by a gogol of zeros—except that there is not enough paper in the observable universe to write it down completely. This number is called a "gogolplex." We can reasonably say that no one can even begin to imagine the size of a gogolplex.

Although the physical infinity presented by the Ummites is considerably smaller than a Gogolplex (and exceptionally larger than a Gogol), I think that, with the help of the previous comments, we can get a better idea of its mind-boggling magnitude.

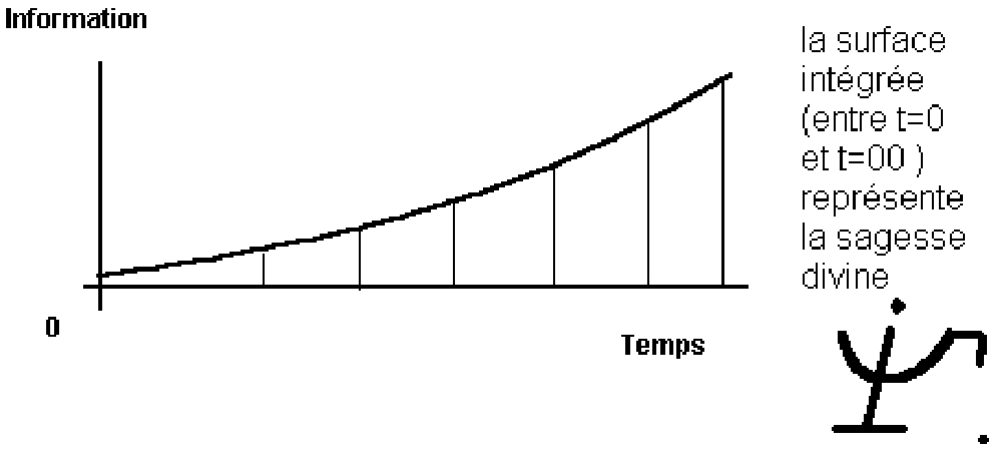
Taking advantage of the fact that we are dealing with concepts such as infinity, continuous and discrete, etc., to quote a paragraph from a text sent to the ummo.science distribution list, in response to a controversy about the meaning of "continuous space-time" in a Ummite text, by Jacques Pazelle, which I believe contains a very accurate image of the meaning of this universe of discrete relationships that the Ummites present to us as the substrate of our reality:

> (Jacques Pazelle) Following Didier Talmone's remarks, it is indeed necessary to put the words "continuum," "continuous," and "infinite" back into the context of the letters.
>
> A "continuum" should be understood as a DISCONTINUOUS set of I.U.s such that, for each I.U., there is another I.U. that differs from it only by a minimal angular difference (very small but not infinitesimal) in at least one dimensional quantity. **It would be more accurate to speak here of a hyperfine "mesh" in 10D of space-time-mass.**

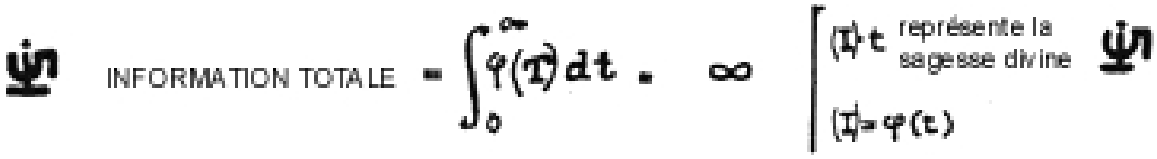
The chain of IUs that underlies the WAAM-WAAM is composed of a number of IUs that, although countable, is physically infinite. No matter how "fast" and how "far" we go to count them, we would never see the end.

Finally, and in addition, although the Ummites tell us that the speed of propagation of an energy quantum in the WUAAM B.B. is infinite and add that this infinity is of the type they define as physical infinity, this does not mean that the number of IBOZOO UU that make up the WAAM WAAM is not infinite in a sense closer to the mathematical sense, that is, that their number is unlimited. Understanding unlimited to mean that, given that the WAAM WAAM is never concluded ("never concluded" must be understood as "outside" what we call time) and that it develops itself by continuously encompassing more and more of the infinite information contained in WOA, we can imagine that in order to encompass the infinite wisdom of WOA, a growing and unlimited number of IBOZOO UU will be necessary.

**TEXT 23.-** **http://www.ummo-sciences.org/fr/D731.htm** WOA exists. Not in time. It exists, and that's all! The multi-planar universe exists as a ten-dimensional whole that includes time (it makes no sense to believe that the cosmos is slowly evolving while WOA is gradually generating it. The illusion of the passage of time is unique to living beings).
WOA conceives a multicosmos with the following profile:




S731-f15
... and capable of enriching itself with information (the x-axis represents Time. The y-axis symbolizes SELF-ACQUIRED INFORMATION).
How can we conceive of a system capable of self-generating information, thereby making itself intelligent? Our philosophical answer is that this information is the "information" that WOA possesses in its infinity; it is a reflection of WOA's intelligence. (Note that the function represented in this graph can be integrated between zero and infinity:




731-f16
The difference lies in the fact that WAAM-WAAM cannot be WOA and needs to progress in "knowledge" while, in timeless WOA, information is integrated into it (fully). (Ndt: "fully" written by hand)

After this excursion into the concept of continuous and discrete, as well as into the meaning of numerical quantities, we return to the subject of the evolution of the magnitude "mass," that is, the angular difference according to the "mass" direction for an angularly "contiguous" isochronous section to the previous one (according to the "time" orientation).

## The propagation speed of a disturbance in the WAAM

Let us now return to the evolution of the discontinuity of the OAWOO distribution in the mass direction shown in Figure 20 and outlined in Figure 21. We have seen in the previous section that the IOAWOO angular difference grid is discontinuous, therefore THE OAWOO DISTRIBUTION FUNCTION FOR A LATER INSTANT **CANNOT EXTEND TO INFINITY** AS I HAVE DRAWN IN THE FIGURE.

20. No matter how much the ummites tell us that the behavior of the IBOZOO UU over time (we will see later what time means in this context) is statistically random, we should not use mathematical functions that are conceived according to the axiom that space is a mathematical continuum to characterize this evolution. In reality, the distribution of OAWOO one "instant" later (that is, for an isochronous section of the WAAM distant by a minimum increment of IOAWOO time) will be more like that shown in Figure 22.

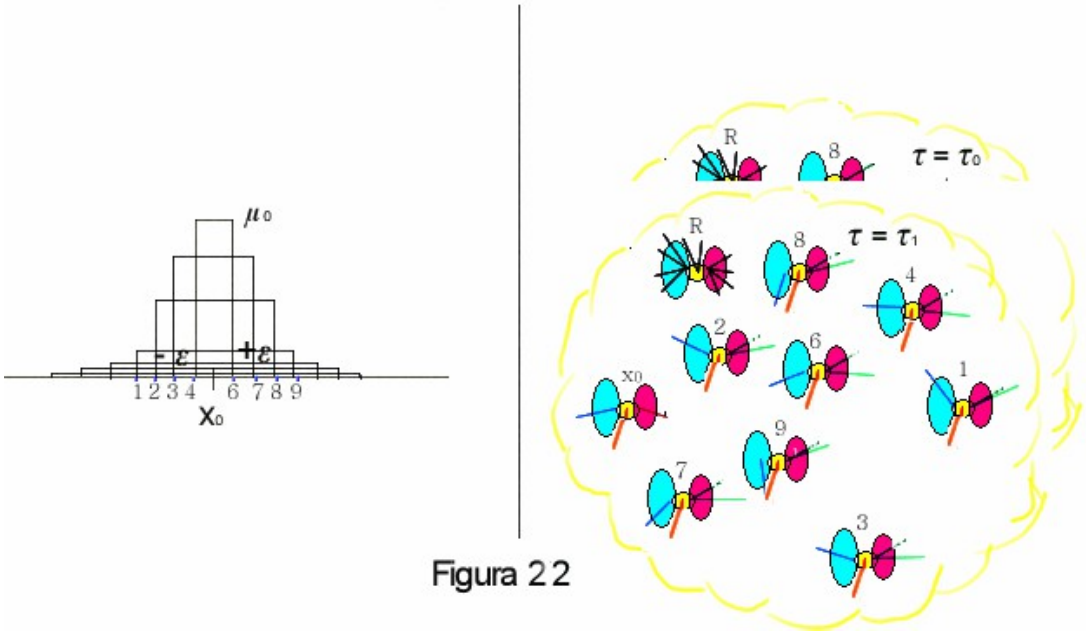



Figura 22

We see that for an insignificantly small increase in IOAWOO time, the distribution of IOAWOO mass has "spread through space" by a minimum number "n" of spatial IOAWWOs in all directions of space. That is, if previously all the IBOZOO UU encoding that area of space had the OAWOO rotating in the mass direction parallel (and therefore there was no angular difference between them in that direction) minus one, now those OAWOO have been oriented according to a statistical distribution around the one representing that discontinuity. However, since the angular differences between them are discrete (i.e., they cannot be as small as we want), there will be some IBOZOO UU limits at a certain angular distance from the center of propagation, such that the angular distance in the mass direction is a minimum distance from the previous situation and therefore the contiguous IBOZOO UU further away

(further away by one IOAWOO greater in the directions of space) will no longer be affected by the disturbance.

My interpretation of what the propagation of a disturbance (modification of the angular differences in the directions of mass and associated) entails is that if, for an increase in IOAWO time "Δτ," the disturbance has affected a number "n" of IBOZOO UU in the space directions, and calling the minimum IOAWOO in the space directions (this is the space quantum) "Δε", then the space traveled by the disturbance in a ⊠τ can be called ⊠E = n * ⊠ε, so the propagation speed of that disturbance will be: ⊠E / ⊠τ = n * ⊠ε/Δ τ. My speculation is that this propagation speed of the disturbance in a vacuum is a basic parameter of that WAAM and that it is precisely the speed of light "c." Therefore, we would have c = n, where "n" is an integer equal to the number of "space quanta" traveled by a disturbance of the IOAWOO mass complex for each "time quantum" (and therefore ⊠⊠ε/Δ τ" is the speed quantum). There is an image in the Ummite texts that made me think of this conception of how a disturbance induced by a mass (and/or associated masses) moves in space over time.

**TEXT 24.-** **http://www.ummo-sciences.org/fr/D105-1.htm** Imagine a huge plain, or perhaps a gigantic table, on which millions of playing cards have been spread out evenly and symmetrically, face down. With a single goal in mind, the player has laid out a long row of identical cards. Perhaps it is the ACE OF CLUBS that has been placed face down. An observer flying a few feet above the huge game table in an imaginary helicopter would see only a large area covered by the same color of the backs of the cards and, as a dominant color, the Ace of Clubs, upside down.

The cards represent the IBOZOO UU.

The hidden player can, under the table, make the driver of the vehicle believe that the card is "moving forward" or "running" on the table. Using a stick and through holes in the table, they turn over all the aces of clubs that were on the table, placed in a row, taking care to turn back the cards that were turned over previously.

If the player is skilled and does this at breakneck speed, the observer will have the optical illusion that our reference card is sliding, when in reality not a single colored card has moved from its original position.

But the player can take the joke even further. Each time he picks up an ACE OF CLUBS, he also turns over an adjacent card, two in the second operation, three in the next... so that the observant pilot sees that the ACE OF CLUBS not only "slides" but also that a whole polychromy of cards magically appears around it.

I have often wondered what the meaning of this text was. What does it mean that every time he turns over an ACE OF CLUBS, he simultaneously turns the adjacent cards on both sides? The ACE OF CLUBS clearly tells us that it is the IBOZOO UU that encodes that particle, and its displacement indicates that the maximum of the IOAWOO mass distribution function (which I have represented exaggeratedly discontinuous in Figure 22) moves from one IBOZOO UU to another for each time increment, but simultaneously, that IOAWOO angular difference in the mass direction "spreads" throughout space, somehow "notifying" the rest of the IBOZOO UU of its

environment of the existence of that disturbance, and thus a "polychromatic chart" appears, that is, the "adjacent" IBOZOO UU are progressively "contaminated" by that disturbance and in this way are "INFORMED" of its existence. We see that as "time passes" (as we consider sections of WAAM with more advanced IOAWOO time), the WAAM has MORE INFORMATION. The passage of time, as we are told, is directly EQUAL TO GREATER INFORMATION RICHNESS.

**TEXT 25.- http://www.ummo-sciences.org/fr/D105-2.htm** We will express this in another way for your less prepared brothers: How do we know today that time is passing, moving forward from the past to the future? We will contrast two episodes: the one in the morning when we read in the press about a catastrophic train accident, and the one in the afternoon when a radio station added to our information, giving us the names of those who died in the derailment.
Notice that the entire measure of TIME was limited to observing different levels of information. At a given moment, the watch we looked at or the pulse we checked involved counting a certain number of revolutions of a gear or recording the number of heartbeats pumping blood through the body. What you call "a moment later" is observing an increase in information, represented by a new number of revolutions of the motor or by nerve impulses activating the muscle fibers of the heart. In other words, the wealth or increment of information is TIME, not THE FUNCTION OF TIME AS SOME THEORISTS ON EARTH BELIEVE.

**TEXT 26.- http://www.ummo-sciences.org/fr/D731.htm** The OEMII, like any living being, is a spatiotemporal and negentropic network of "ibozzoo uhu." In other words, its evolution over time is such that internal entropy (loss of information) decreases instead of increasing, as happens in a crystal, a rock, or a galaxy. This means that we perceive the passage of time according to two states of entropy, E1 and E2, the second of which is lower than the first. In the meantime, there has been a decrease in entropy, i.e., an increase in INFORMATION D I
We do not really perceive time, but rather the enrichment of information. This is why when you are bored, time passes slowly (the increase in information is minimal).

We have seen that according to the Ummites, the only laws that govern the WAAM are mathematical and statistical. But at the same time, we are seeing that the entire WAAM WAAM is defined by a set of IBOZOO UU in which the global information of the WAAM WAAM is encoded in a way that we could call "permanent," that is, outside of time, since time is nothing more than another dimension of the WAAM WAAM itself. I mean that if an entity outside the WAAM WAAM and, more specifically, outside a specific WAAM, such as ours for example, were to visualize our WAAM, it could encompass not only its spatial dimension but also its temporal dimension, and therefore see a four-dimensional hypersurface (space plus time) immersed in a six-dimensional subspace (four of space and two of time) within the more general ten-dimensional space. If this being focused on a slice of that hypersurface such that its angular distance, according to the time orientation, was constant for all its points with respect to an IBOZOO UU taken as a reference, it would observe in many of its spatial sections small "holes" made according to orientations orthogonal to those of space itself as well as to those of time. If that being then observed successive sections or slices (considering the sections to be successive in relation to the time dimension), it would see that these small depressions, considered as a whole along the time direction, extended like small wrinkles in the hyperfine fabric of space-time. Following the evolution of one of these "wrinkles" ( the becoming of a

particle over time) in the skin of space-time, that being would see that depression according to the mass direction evolve along the time axis in accordance with a mathematical function describing the temporal evolution of a random statistical distribution (such as the Trébol AS in the image of the Ummites). This external observer of the WAAM could interpret the "sense of time," that is, they could know when one section of the WAAM was earlier than another, simply by checking that the distribution of IOAWOO according to the mass direction in that isochronous section had a profile that was more (or less) "evolved in time," according to the criterion of evolution provided by the mathematical function referred to above. In short, for that being to be able to "see" the entire WAAM, past, present, and future, at a single glance, the distinction between one section of WAAM and another would be given by the evolution of the distributions of OAWOO mass (and/or associated variables), according to the criterion given by the evolution of random distribution mathematical functions. We know that in the absence of interactions, a random distribution function tends to be distributed homogeneously according to all possible states and in the case of a distribution such as that proposed in Figure 20, we would have that the perfectly discontinuous separation of OAWOO in the form of a Dirac "δ" function, at *time* $\tau_{(0)}$, would be distributed uniformly throughout space until that

singularity disappears. I do not want to speculate on possible mathematical functions, but it is clear that the Fourier transform of this Dirac "δ" as a function of time would be a good candidate.

**TEXT 27.- http://www.ummo-sciences.org/fr/D57-1.htm** By studying the true nature of the corpuscles or entities that you call PROTONS, MESONS, NEUTRINOS, ELECTRONS, etc., we have discovered that they are in fact small deformations of Space, wrongly called Three-dimensional, in the axis of other dimensions. Imagine a sheet spread out; this would be the comparison of three-dimensional space, which we would call empty. If we now make a small dent or deformation in the sheet, this dent could represent the mass of the proton or sometimes the MUON, depending on the axis along which the deformation occurred, as well as the size or depth of the dent.

Thus, if you look at the sheet from one side, you will see a concavity (PROTON), but if you look at it from the other side, you will interpret it as a convexity or protuberance (ANTIPROTON). Furthermore, if you position your axes from different perspectives, this deformation may appear more or less oblique, i.e., exerted in different axes or dimensions, sometimes appearing to be a "NEUTRON" and other times what you call subatomic particles. In short, the interpretation of such a particle will depend on the reference system in which the observer is located. This is why Earth physicists are so perplexed when they discover hundreds of atomic corpuscles whose series seems to have no end. In reality, you are pursuing fantasies. It is like trying to classify the multiple reflections projected on walls by a simple polyhedral crystal struck by sunlight.
(This is not a criticism of Earth-based research in the field of quantum and nuclear physics when you analyze the different characteristics of these particles, but simply of the fact that you consider them to be different entities).

It is indeed the permutation of one corpuscle into another, something you have already observed according to our information, but which you do not yet know how to control. It is nothing more and nothing less than a "CHANGE OF AXIS," that is, A CHANGE OF DIMENSION. When the MASS of a PROTON, for example, disappears before your eyes and is converted into ENERGY, what has actually happened is that its AXIS has undergone a 90-degree AXIAL rotation in a classical dimension of Space. But this is true for YOU and your REFERENCE SYSTEM, because for another

observer located from the perspective of the Fourth, Fifth, or Sixth dimension, what they will observe is precisely the opposite phenomenon, that the Energy concentrates to form a particle that they will also call a "PROTON."

In reality, you are currently experiencing in your physics laboratories what has been dreamed of by both terrestrial physicists and science fiction authors: the transition to the fourth dimension. (A bit like the phrase you use so aptly: "Speaking in prose without knowing it.") When you succeed, as we have, in controlling the homogeneous inversion of all the sub-particles of the human body or of any object, this must be interpreted as the transition from one three-dimensional reference system to another three-dimensional system that is distinct from the first. In reality, it is less fantastic than you might imagine and, from that point on, different from anything dreamed up by futuristic writers on Planet Earth.

In the real WAAM, there are an infinite number of particles from the "beginning" (understanding the beginning to be the set of IBOZOO UU that encode the "zone" of the WAAM (including time) from where the information begins to "flow"). According to the Ummites, the beginning of a WAAM occurs in a state of infinite curvature radius of the four-dimensional hypersphere (three-dimensional space) in which this space contracts towards a Big Crunch.

**TEXT 28.-** **http://www.ummo-sciences.org/fr/D57-1.htm** These Universes (like the others) were born with an infinite radius and an isotropic mass distribution (cosmic crystal) and zero density. The radius gradually decreased (the direction or sense of time was negative with respect to the present). But the disturbance of adjacent Cosmoses caused Singularities of mass to occur (i.e., first Nebulae of gas and dust, future galaxies), ceasing to be isotropic or cosmic crystals. (We call a cosmic crystal a universe whose mass density is constant at any point and which has the same properties in any axis or direction).

In the first phase of these Universes (negative time), entropy decreases (it was initially infinite), density increases, their inhabitants would observe a shift towards violet (a color they would certainly perceive differently) in their spectroscopic instruments, and galaxies would rush towards each other. The death of this Cosmos (For these, we can speak of three deaths: the infinite radius phase that extends over infinite time) (we cannot therefore speak of birth as that of a pair of IBOZSOO UUHU [L] (INSTANT).
We say that the second death occurs when the radius becomes zero. The mass remains constant, the density is infinite and unstable.

## Gravitational Attraction

I said that in the real WAAM there are obviously an infinite number of particles and as "time passes," that is, as we consider more information-rich sections of isochronous space, the perturbations derived from each particle begin to interact with those of other particles. My assumption is that (as shown in Figure 23) the evolution of this IOAWOO distribution in the mass direction must tend towards a profile with a single maximum. This is similar to what happens with the kinetic energy distribution of molecules in a liquid, which are distributed statistically (Gaussian) with a maximum for a given kinetic energy, varying according to the temperature of the system. If we now mix two quantities of this liquid at different temperatures (each therefore with its maximum at a different kinetic energy), we will see that the maximum quickly converges towards an intermediate value, which will depend on

the respective quantities of liquid). In the case of the distribution of OAWOO mass, the maximum will also end up closer to the largest maximum. This interpretation also explains the equivalence between inertial mass and gravitational mass, which is one of the principles or foundations of the General Theory of Relativity. I do not want to determine what type of statistical function will behave in this way, but I am clearly pointing to one whose behavior over time tells us that the evolution of the maxima behaves in accordance with the law of gravitational attraction, that is, the variation in the speed (acceleration) of each of the maxima over time is greater the closer these two maxima are (evolution inversely proportional to the square of the distance) and that each maximum accelerates the more the other is greater.

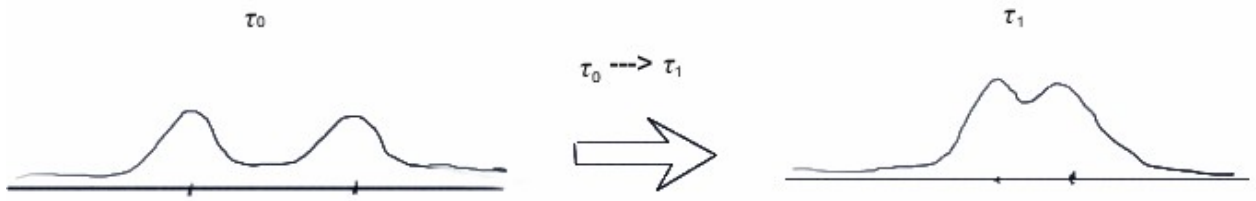



Figura 23

As we have seen above, all angular relationships are quantified, which means that the profile I have drawn in Figure 23 is inaccurate. The IOAWOO distribution profile in the mass direction takes on discrete values for each insignificantly small spatial section. In order to deal rigorously with these "quasi-continuous" or "insignificantly discontinuous" distributions or functions, we will need to redo all the mathematical calculations working only on the basis of rational numbers, for example. Until we have this mathematical toolkit, I will continue to speculate on the basis of certain intuitions. We know that (with very few restrictions) a continuous function can be defined as a vector in a Hilbert function space, that is, as the infinite linear sum of the elements of the basis of that space (sinusoidal functions, for example). For these quasi-continuous functions that I am postulating, we may be able to represent them as a finite linear sum of a basis of quasi-sinusoidal functions...

PARTICLE ENERGY. Although I don't know how to mathematize it, I think that the energy associated with that particle (with that IOAWOO distribution function) will be given by a harmonic oscillator function that expresses how the maximum of that function "vibrates" around its equilibrium position. When we later try to understand what the electric charge and magnetic field components of these "particles" (IOAWOO distribution in these directions) consist of, we will see how, when they "oscillate" within a potential field, and according to Schrödinger's equation, the maximum "mass" of an electron-type particle will oscillate within a "distribution" of the presence of the maximum representing that electron, and this will be precisely the solution of the wave equation for a given energy level corresponding to the possible eigenvalues (possible energy levels) of Schrödinger's equation. These wave functions, each corresponding to an energy level, will correspond to the different orbitals for that atom. We know that these solutions correspond to standing waves, that is, they remain stable over time. These situations (particles trapped within potential wells or, in other words,

within attraction fields) are what allow these mass distributions (and associated particles) not to evolve and rapidly degrade over time, until the Universe becomes an isotropic continuum of radiation. Of course, we know that despite this, stationary situations are not completely permanent and that a free proton or neutron decays, and thus little by little the Universe will bring into phase the enormous amount of "mass and associated" maxima that in the form of stationary waves made up the atoms, until they become an immense isotropic space without information.

T**EXT 29.- http://www.ummo-sciences.org/fr/D41-15.htm** 336 -END OF WAAM and UWAAM, DEATH OF THE TWO COSMOS.

What will be the end of the two twin cosmos? Taking into account the fact that WOA continues to create matter within each Cosmos, the degradation of mass into energy is much faster. There will come a time when the two universes will be reduced to a hyperspherical space-time continuum with a negative radius, but now of infinite size. Without mass concentration, that is, without galaxies, that is, without curvatures, without "folds." Only a continuous and isotropic propagation of radiation with the same frequency, because now the multiple sinusoidal functions created by WOA will have phased and ceased to produce these standing waves, these nodes and crests that our naive senses interpret respectively as "VOIDS and MASSES." Only an ocean of waves will remain, whose amplitude will decrease until the final death of the "cosmic pair."

Returning to the subject of gravitational attraction, we see that each elementary particle can be identified with a probabilistic distribution of IOAWOO according to the mass direction. We have also seen that in the total WAAM (space + time), each section represents a tiny lapse of time and that the IBOZOO UU that encode the information relating to a particle at a given moment give way to the IBOZOO UU that encode it (through the variation of IOAWOO between the two) an instant later, It can be established that the difference between the two situations can be assimilated to that experienced by a random distribution function in time. Now, when two perturbations from two different particles access the same IBOZOO UU, my understanding of what the ummites are telling us is that the IOAWOO that forms "now" (for this new time section) this new pair of IBOZOO UU with respect to the one that encoded the same section of space an "instant before" is the sum of the differences in IOAWOO due to each of the two aforementioned disturbances.

Because of this, if we have a system of particles (IBOZOO UU encoding stationary distributions of IOAWOO) linked by their statistical dependency relationships (see Figure 23, but also take into account attractive and repulsive dependencies—electrostatic forces—that we have not yet considered), we will find that this system will remain relatively "stable" over time and will in fact constitute, for our mind, an element of the macroscopic world. A body (solid, liquid, gas, etc.) We see that under this conception of IBOZOO UU, bodies that are so clear to our minds are so because they are systems of IBOZOO UU linked with great cohesion that gives them permanence and a certain "autonomy" or independence from the set of IBOZOO UU that encodes the area of space that "surrounds" this body, However, we also understand that the clear-cut separations between things are nothing more than

representations of our mind, which interprets holistically (globally) this subtle and extremely complex web of angular relationships. Therefore, if all this set of linked IBOZOO UU adds its IOAWOO "mass" with respect to those that are contiguous, the body itself, the set of IBOZOO UU, will define a web of angular relationships that as a whole will represent a "hole" (sum of the small depressions of each particle) according to the "mass" direction perpendicular to the classical ones of space and time. I explain this more intuitively in Figure 24.

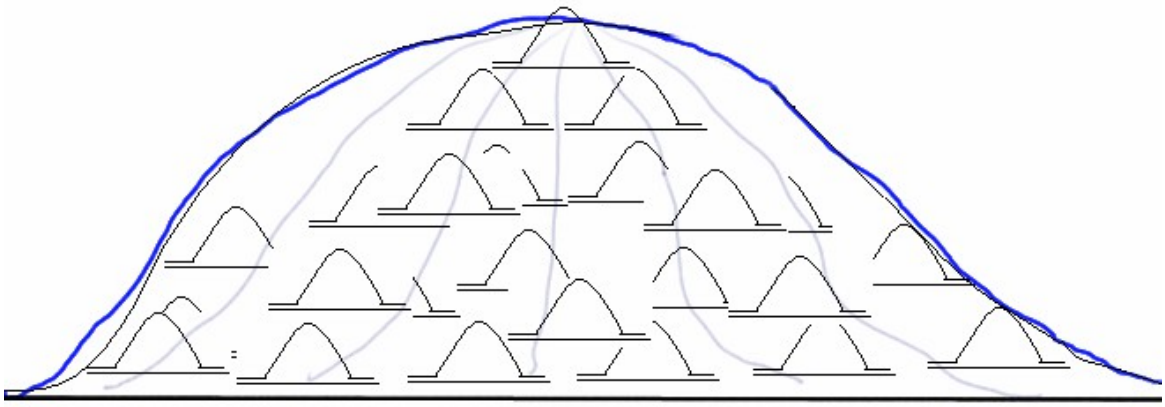


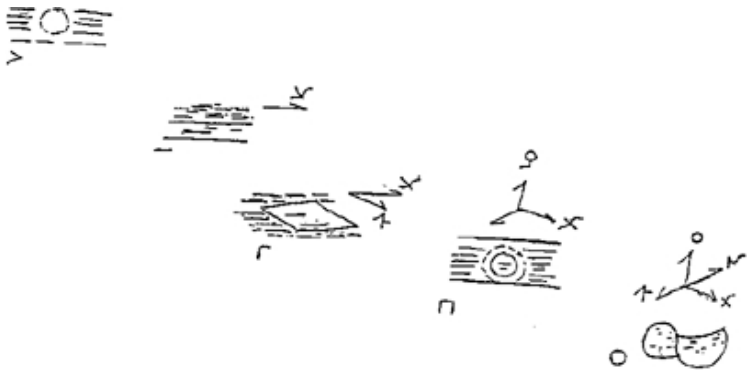
Figura 24

With this figure, I want to express that throughout this section of space, the IBOZOO UU that encode countless sections of that space are in turn affected in their OAWOO that rotate in the mass subspace (and associated ones) by a distancing of that OAWOO from that of the contiguous IBOZOO UU, and the set forms a "depression according to the mass direction."

**TEXT 30.- http://www.ummo-sciences.org/fr/D41-15.htm** Our Cosmos is what you call a space-time continuum (it took us 10 dimensions to define it mathematically). We could speculate by attributing an infinite number of dimensions to it, but we are not in a position to prove this. Of these ten dimensions, three are perceptible by our sensory organs and a fourth—TIME—is perceived psychologically as a continuous flow in the single direction we call UIWIUTAA (arrow or oriented sense of time).

In the beginning, our two twin cosmoses, WAAM (ours) and UWAAM (our twin), were defined by a WAAMIAAYO (difficult to translate: point or origin of a single coordinate that would be precisely time). WOA successively created the rest of the dimensions, but do not interpret this "successively" as a temporal or spatial succession, but as an "achronic ordinal" relationship, that is, "ordered" outside of time. In the sketches that follow, we wish to roughly represent these phases of GENERATION or CREATION.

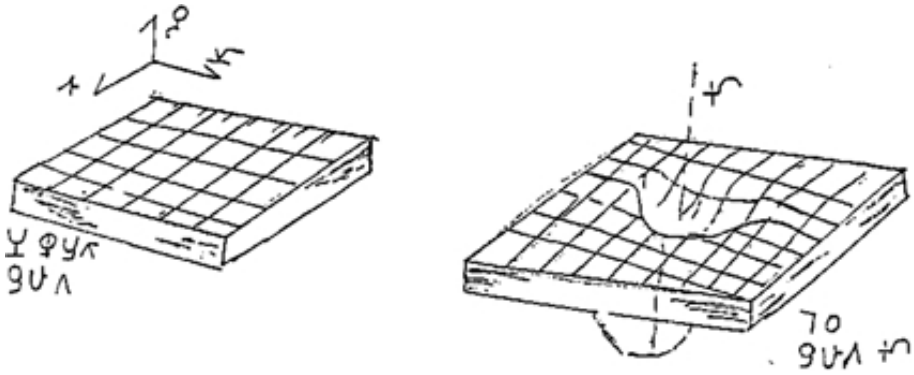
(The sketches are rough because it is impossible to enclose more than three dimensions in a graphic.)



You can imagine that our primitive BICOSMOS looked more like a small empty sphere. A small universe without galaxies, without intergalactic gas, only space existing in time (figure 1).

WOA curves and bends this space. Each "new" curve implies a dimension and finally "wrinkles" it. Note that we are using a comparison, a symbol, because this can only be expressed correctly in a mathematical way. For example, the expression "wrinkling space" may seem childish, but it is very instructive.

Another image will help you understand better



If we curve a three-dimensional space, if we fold it, or if we make a kind of hollow (see figure 2) through a fourth dimension, this curvature represents what our sensory organs interpret as a MASS (a stone, a planet, a galaxy).

Thus, WOA extorts this microcosm, thereby creating mass. Nothing less than almost the entire current mass of our two twin universes concentrated in a hyper-reduced space. A bit like if all the water in UMMO were enclosed in my fist. Matter and antimatter, as you call them, are super-concentrated.

What we are saying immediately brings to mind Einstein's conception of a geometrization of gravity in which mass is nothing more than a depression in the fabric of space-time. In this, it coincides with the Ummite view, but bearing in mind that, according to the Ummites, this depression occurs in a direction orthogonal to the classical directions of space and time. (There are many introductions to the General Theory of Relativity on the Internet. I have selected one at random that I found educational and straightforward).

## La relativité générale (http://www.astronomes.com/c3_mort/p336_relgen.html)

In developing these ideas, Einstein arrived at a new vision of gravity that would replace Isaac Newton's: general relativity. The most important aspect of this theory is the disappearance of the concept of gravitational force. For Einstein, the motion of a body is not determined by forces, but by the configuration of space-time. For example, according to Newton, the Earth revolves around the Sun because the Sun exerts a gravitational force on our planet, whereas for Einstein, it is a disturbance in space-time introduced by the Sun's mass that causes the Earth to move.

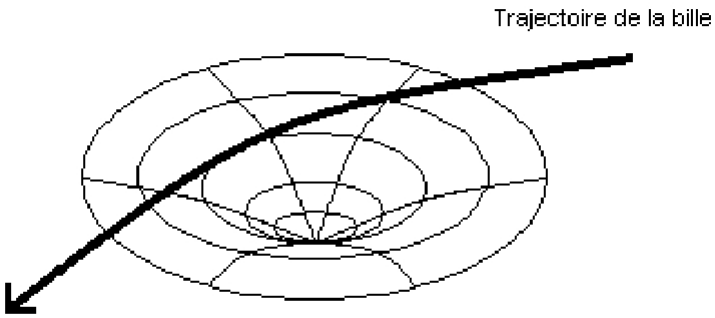



Figure 3: Space as an elastic fabric. The first ball creates a depression in the fabric. The second ball penetrates slightly into the depression and its trajectory curves.

To better understand this idea, let's use a two-dimensional analogy (fig. 3). In general relativity, space can be compared to a kind of elastic fabric. The presence of a star can be simulated by placing a ball on it. It sinks into the fabric, deforms it, and creates a depression. What happens when a small body passes close to the star? To answer this question, let's roll a smaller ball on the fabric. The trajectory is initially a simple straight line, but when the second ball passes close to the first, it sinks slightly into the depression. It is then deflected from the initial straight line and its trajectory curves. The important point is that on this elastic fabric, the movement of the balls is not dictated by forces, but simply by the shape of space, or more precisely, by its curvature.

Similarly, general relativity abandons the notion of force and replaces it with the concept of space-time curvature. Celestial bodies try to follow trajectories that are as straight as possible, but they must submit to the configuration of space-time. Far from any distribution of matter, the curvature of space-time is zero and all trajectories are straight lines. However, near a massive body, space-time is distorted and bodies move along curved lines, such as parabolas or ellipses.

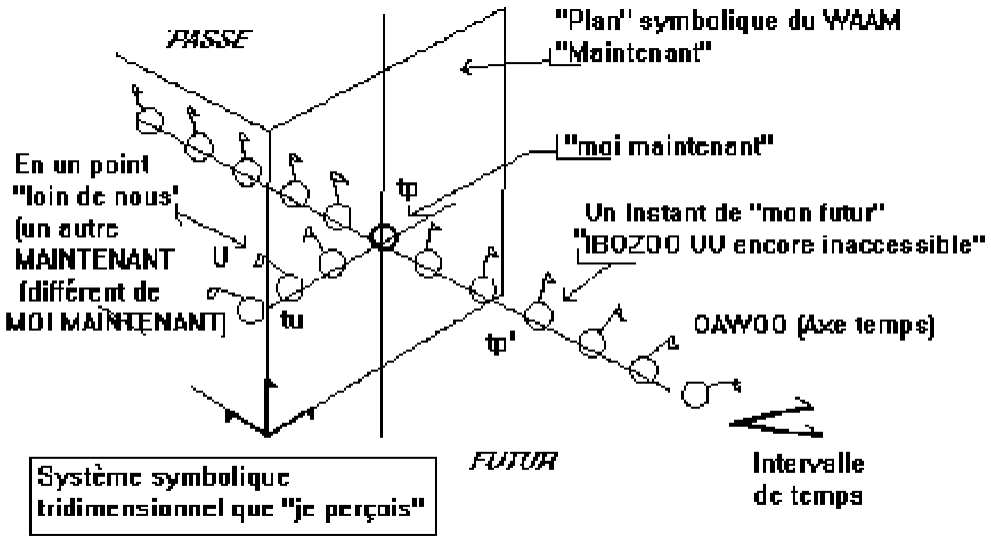
To be complete, the theory of general relativity must also provide a means of calculating the curvature of space-time created by a distribution of mass. It does this through a very complex system of mathematical formulas, Einstein's equations, which link the curvature of space-time and the distribution of mass. This system is so complex that it has only been solved in a few very simple cases, for example around an isolated star.

## Our real space-time

So far, we have considered the set of IBOZOO UU that make up the WAAM WAAM. We have seen that one criterion for grouping them is to consider those that have four of their OAWOO "rotating" within a given four-dimensional orientation of the infinite ones existing within ten-dimensional space as belonging to the same set. Selecting any one of the four-dimensional orientations (which encodes one of the infinite WAAMs), we see that the real OAWOO (OAWOO UXGIGII) that rotates in that frame of reference, of each IBOZOO UU with respect to any other in that set, determines by angular difference (IOAWOO) an oriented distance within that four-dimensional space, and the set of them make up the mesh of a three-dimensional hypersurface. We said

that in a two-dimensional hyperplane orthogonal to the previous one, two of the OAWOO of each of the IBOZOO UU that made up the space grid rotated, and depending on their IOAWOO with respect to another reference one, we could establish groups of isochronous IBOZOO UU, encoders of isochronous sections of the WAAM space-time. But we can ask ourselves: do the isochronous sections of the c-continuum space-time have any meaning for our sensory experience? If we assume a point in space (actually a small number of connected IBOZOO UU encoding a small volume of space), it might seem that in a reduced environment of that volume, a being outside the WAAM could follow the evolution of what happens in that environment by considering isochronous sections of that space environment. However, this is completely false. Let us look at the following text from D59-3 and the associated drawing (which is not the one originally appearing in the documents) to see how the Ummites present the section of space-time relevant to a point, in which we see the OAWOO time progressively shifted IOAWOO greater, the greater the spatial angular distance of other points with respect to the reference point.

**TEXT 30.-http://www.ummo-sciences.org/fr/D59-3.htm** If we consider the Waam as the integration of all the IBOZOO UU "past, present, and future," what we call "Me, now" can be represented by a plane on image S59-f32.




If ME; I am at a "point" P represented by an IBOZOO UU with its Tp (OAXOO) oriented vertically, what will happen tomorrow? "I" will be at T'p (another IBOZOO UU) which I will call future. (1)

(1) When we say MOI, we are not referring to an OEMII (Person) composed of trillions of IBOZOO UU, but to an elementary subparticle of my organism: a proton, for example. You can see that the Earth physicist Einstein conceived a universe that in some ways is not so different from the one we are describing to you. You just need to replace the "SPACE-TIME CONTINUUM" with "discrete (*discontinuous)* set of IBOZOO UU." Plus, Einstein agreed with us on other key points. But Einstein didn't know that what he thought was the CONSTANT SPEED OF LIGHT is only constant in one of the possible reference systems. He was unaware that there were other three-dimensional frameworks than the one we are familiar with. Our

conception of WAAM explains certain contradictions that physicists on Earth believed they had found between quantum mechanics and relativity theory, as we will explain in subsequent documents.

But what happens on the "ME NOW" plane for another point distant from me by a distance d, i.e., a chain of IBOZOO UU? Quite simply, the orientation of its (OAXOO) Tu (time axis) will be different. We cannot therefore say that there is simultaneity of TIME. We cannot therefore say, for example, that "NOW" such and such a thing is happening on the planet VENUS, because such a concept of simultaneity has no meaning (and ALL this for the same frame of reference).

We have accepted that the disturbances that configure the deformations of the spatial grid according to directions orthogonal to space itself propagate in the WAAM according to the evolution of certain statistical functions and according to certain restrictions that the existence of these disturbances imposes on each other. Our science classifies these disturbances into two large groups. The group of electromagnetic disturbances and the group of gravitational disturbances. If we admit that both groups of disturbances propagate at the same speed within the space-time grid of the WAAM, we can immediately conclude that for a reduced space-time environment, THE ONLY SECTION OF THE UNIVERSE THAT WILL BE RELEVANT, THAT IS, THE SECTION WITH WHICH IT WILL BE IN GRAVITATIONAL AND ELECTROMAGNETIC EQUILIBRIUM, WILL BE THAT OF A SECTION
DIAGONAL OF THE SAME and such that the "slope" around the time axis is precisely that of the propagation speed of electromagnetic-gravitational disturbances in that Universe. This propagation speed is that of light "c," which we have defined as being equal to the ratio between the increase in spatial IOAWOO divided by the quantum of IOAWOO time corresponding to that displacement:

- c= Δ E/Δ τ= ⊠⊠Δ ε/Δ τ.

Before continuing, let's delve a little deeper, for the uninitiated, into the concept of the Diagonal Universe or, in other words, the concept of a space-time with Minkowsky geometry.

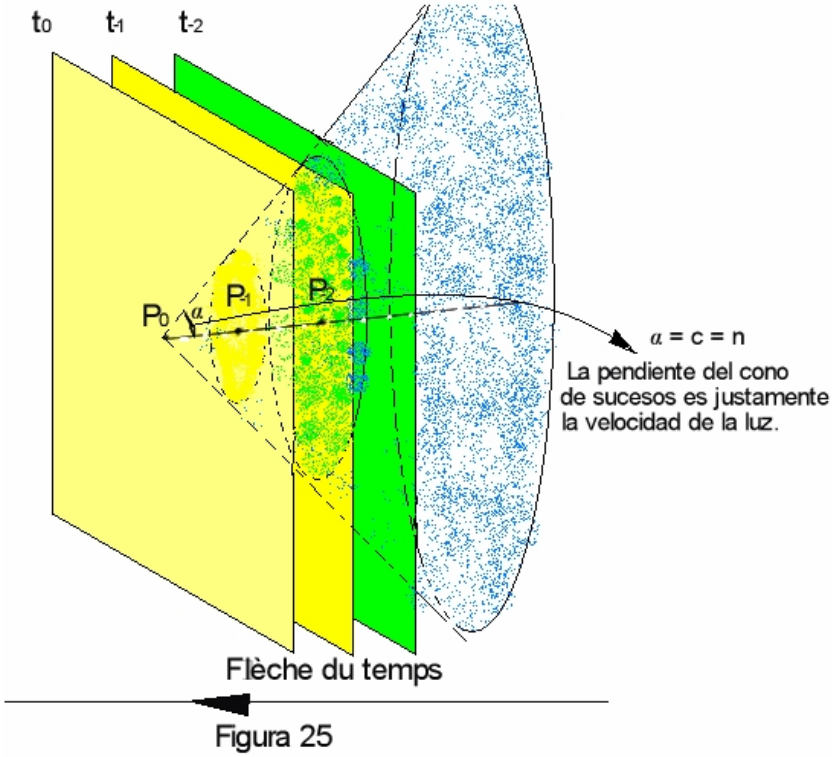


Figura 25

Let's imagine a two-dimensional universe with Euclidean geometry. We can see that over time and for each instant of time, successive sections of two-dimensional space occur, as I have represented in Figure 25. Each of these isochronous sections expresses the complete two-dimensional spatial universe, and the set of all sections expresses the complete space-time universe. If we place ourselves at a point "P" in that Universe corresponding to the instant "t0," which I have called "P0" in Figure 25, then, if we accept that this point is in electromagnetic and gravitational interaction with the Universe surrounding it, then with the space-time environment with which it actually interacts, it is not with the one located in its same isochronous space plane, but rather for each circular environment around P, we will have that the "points" that interact with it, that is, the points in space-time with which it dynamically interacts, are those in a space-time plane corresponding to an earlier instant "t-1" such that the distance from those points to point "P-1," that is, the radius of the circumference, is equal to "c·(t 0-t-1)." More generally, the set of points that interact with "P0" are those located within the geometric location within the space-time continuum, such that they satisfy the following condition $( x^{(2)} + y^{(2)} )^{(1/2)} = c \cdot t$. This can be expressed in another way: $x^{(2)} + y^{(2)} – c^{(2)} t^{(2)} = 0$. This equation mathematically expresses the conditions of a Minkowsky space (two-dimensional), in which, as we will see a little later, the invariance of the speed of light for any inertial reference system is naturally fulfilled. A more elegant way of writing the above equation is $\mathbf{x^{(2)} + y^{(2)} + (ict)^{(2)} = 0}$ where $i = (-1)^{(1/2)}$.With all of the above $[(x^{(2)} + y^{(2)} )^{(1/2)} = c \cdot t]$, we can understand why it is called the diagonal section of the space-time continuum. We can also see that the angle of the event cone "α = c" is greater (the cone is more open) the greater the speed of light. In cosmology, we call the geometric location of points such that, for a given time distance "t," they send us their light (or their gravitational interaction, assuming that its propagation is equal to that of light) the "event horizon." This event horizon can be seen as a circle in two-dimensional space and a sphere in our three-dimensional space (in the three-dimensional ghost space in which we believe we live). All of this is, of course, related to our current knowledge, and therefore the dimensions of distance and time are considered scalars. It is curious to note that even when our science generalizes to a curved space over additional dimensions (as I am about to do), it still considers these (the spatial dimensions and time) to be scalars, even though the concept of scalar grates strongly when dealing with curved spaces that "demand" angular dimensions in a natural way.

At this moment, our cosmology, as we know, accepts a constantly expanding universe. Our mathematical conceptions assume a three-dimensional hyperspherical universe curved on a fourth dimension, which vaguely resembles time. We assume that since it is expanding, there was a moment in our past when all mass and three-dimensional space were concentrated in a hypermassive point that exploded, generating space itself in its expansion. To understand the meaning of this expansion of space itself, we usually resort to representing what would happen in a two-dimensional spherical space curved over another dimension. We imagine two-dimensional space as the skin of a balloon that inflates, causing the distance between any two points on its surface to move away from each other, and the further apart the points are, the faster they move away from each other. This image serves as a metaphor for what really happens to our three-dimensional hyperspherical space, which also "inflates" within a four-dimensional space. Let's

represent figuratively what happens with the diagonal section of the space-time continuum (as in the image in Figure 25) if we now imagine that synchronous two-dimensional space is not Euclidean but has a two-dimensional spherical geometry (how can we still not see that distances must be considered in an absolute system as angles?).

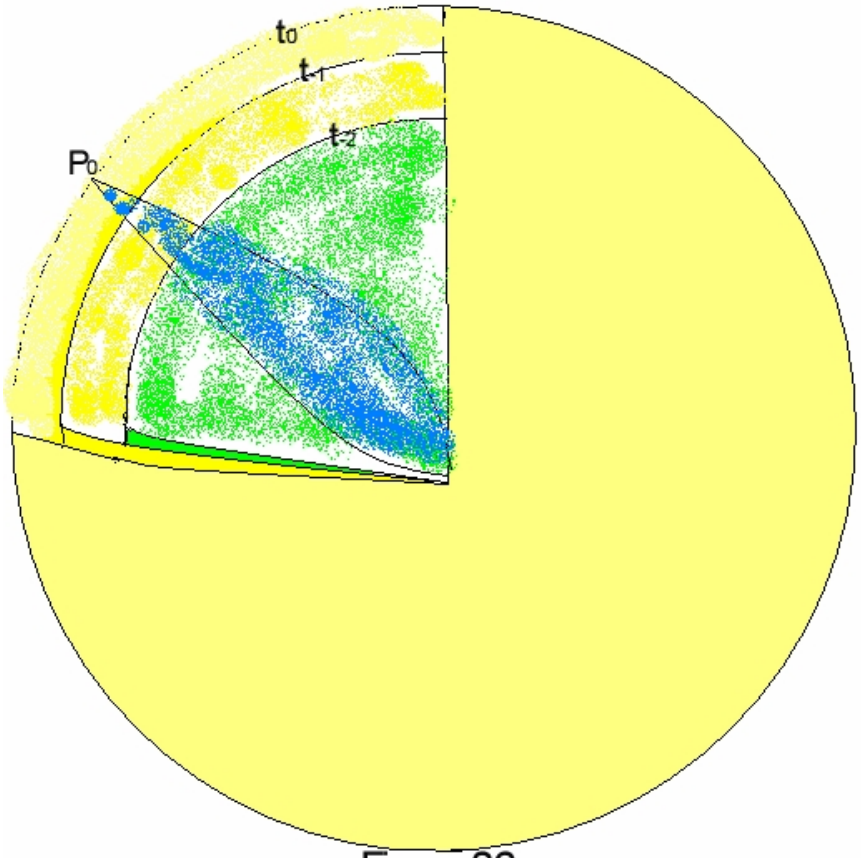



Figura 26

We now see in Figure 26 that the Event Cone, the Diagonal Section of Space-Time, or the Real Space in which we live (in which two-dimensional creatures would live) has a Minkowsky geometry in which the event cone has a more complex real profile than that of a cone since, as it "penetrates" older temporal sections, the two-dimensional space "shrinks" and, at the limit, when contemplating the beginning of the Universe, space shrinks to a point. What does increase steadily as it penetrates the event cone is the solid angle it determines on the spherical surface. We can extrapolate all this to our three-dimensional space.

However, the Ummo view of the geometry of our Universe is quite different. The first and major difference is, of course, that they explain the geometry of the WAAM WAAM (and within it, the infinite WAAMs, including ours) as an informational by-product encoded in the angular relationships of the IBOZOO UU. The fact that the geometry of space-time-mass arises naturally from the angular relationships of these pre-geometric entities does not detract from the magnitude or immensity of divine creation (or, as they say, the generation of WOA), but rather adds to it. Admitting the pre-geometric origin of the Polyuniverse, a second major difference that we find, within the Ummo and terrestrial geometries themselves, is that in our conceptions, the space-time continuum, the universe with Minkowski geometry that we are talking about, is made explicit within a four-dimensional scalar framework. This is clearly insufficient, but attached as we are t o our

psychological experience of an enveloping Euclidean space with scalar magnitudes extending to infinity, we have not been able to "step outside space" and see that "from the outside," a three-dimensional hyperspherical space requires a four-dimensional space in which to be contained, and that its geometry forces us to think in terms of angular dimensions. and, on the other hand, that an additional dimension, time (even if we assumed that time were a scalar dimension), should make us think of a total space of at least five dimensions. If we then assumed, for the sake of dimensional homogeneity, that time was also an angular dimension (rotating in a two-dimensional subspace orthogonal to that of classical space), we would already be very close to having a direct predecessor of the Ummite concept (we would still need to think about pre-geometric entities that generate space). In any case, we see that the Ummites recognize that to contain a four-dimensional Minkowsky geometry universe, two orthogonal subspaces are needed, one with four dimensions and the other with two, while we reduce it to four by mixing and confusing the time dimension with the additional dimension needed by a three-dimensional hypersphere to express itself.

In short, returning to our reasoning, by selecting this diagonal section of the WAAM space-time, we have seen that it immediately refers us to a Minkowsky geometry (although for a universe of closed dimensions, that is, angular dimensions and taking into account that the Ummites conceive space-time as immersed in a ten-dimensional c-continuum expressed from angular differences encoded in the IBOZOO UU) with all the consequences that this entails, among which is, in a fundamental way, that of converting the propagation speed of disturbances "c" or "n" into an invariant independent of the inertial reference system, as we will see below, although before that we will look at Texts 31 and 32 of letters D59-1 and D59-2, where it is literally expressed how the Ummites also admit (as is logical) a universe with Minkowsky geometry.

**TEXT 31.- http://www.ummo-sciences.org/fr/D59-2.htm** Indeed: when you naively accepted the existence of a three-dimensional Euclidean SPACE, distinguished terrestrial mathematicians such as GAUSS, RIEMANN, BOLYAI, and LOBATCHEVSKY had the brilliant intuition that it was possible to extend Euclid's restricted criteria by developing a new geometry for an n-space. And although the human mind cannot mentally perceive the image of a body with more than three dimensions, mathematics easily saves us from this intellectual pitfall.

But do these mathematical models of multidimensional elliptical and hyperbolic geometries correspond to the reality of our WAAM, or are they merely entelechies (Editor's note: realization of the essence of something, completed act of vision: borrowed from Aristotle), created by mathematicians?

The relativistic hypothesis of the German EINSTEIN initially aligns itself with the criterion of the Russian Minkowsky, who conceives of time as an additional dimension, with the intuition of a four-dimensional space-Universe. The terrestrial Oemii has taken a giant step forward by breaking with the petty and intuitive image of a three-dimensional cosmos.

And also,

**TEXT 32.- http://www.ummo-sciences.org/fr/D59-1.htm** You will see for yourself that such a THEORY differs greatly from that developed by Earth mathematicians, that our image of WAAM, although we consider it to be a multidimensional UXGIIGIIAM (SPACE) that undergoes

In its structure of multiple curvatures (which we call masses), it bears no resemblance to the concept of EUCLIDIAN THREE-DIMENSIONAL SPACE developed by Earthlings, nor is it a faithful reflection of modern Earth concepts developed by RIEMANN, BOLYAI, or LOBATCHEVSKY, which postulate a N-SPACE or multidimensional space indicating that the cosmos can take the form of a HYPERSPHERE of positive or negative curvature. For us, there exists what is called SPACE-TIME conceived by MINKOWSKY but immersed in an n-dimensional grid.

When we explain the concept of the IBOZOO UU [L] to you, which must never be confused with the concept of a geometric or mathematical POINT developed by terrestrial mathematicians as an abstraction with no physical reality, you will better understand our theory.

You will notice that the great contrast between your models of SPACE and our real MODEL consists precisely in the divergence at the level of the CONCEPT of DIMENSION, which for you takes on the interpretation of a scalar.

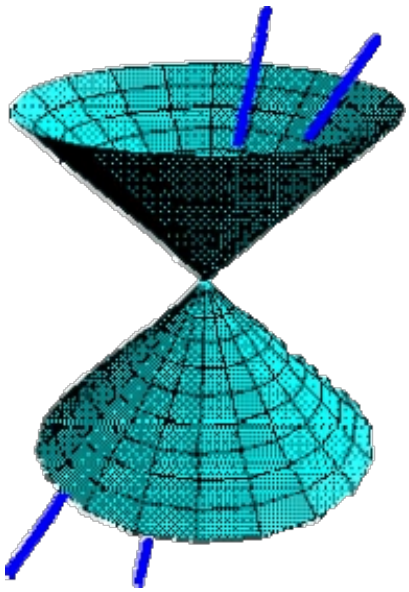
Among hundreds of sites with information on Minkowsky spaces, I have selected this one almost at random (see more info at the URL).

**The Einstein-Minkowski Spacetime**
**http://physics.syr.edu/courses/modules/LIGHTCONE/minkowski.html**

The characteristic feature of Galileo's Spacetime was the set of horizontal slices representing **"planes of simultaneity."** On a given plane, all of its events are simultaneous. This is the notion of **Absolute Time**, in which all observers agree on the elapsed time between two given events. In the particular case of "zero elapsed time," all observers agree that the events on a given horizontal plane are simultaneous.

***Einstein's extension of the Principle of Relativity to all physical laws requires us to abandon Galileo's Spacetime—in particular, its universal "planes of simultaneity"—that is, the notion of Absolute Time.***

In its place, we have the Einstein-Minkowski Spacetime.



In a Minkowsky (angular) geometry space-time $\chi^2+\varphi^2+\omega^2-n^2\,\tau^2=0$
we have that the following are naturally satisfied (required by the geometry itself)

Lorentz transformations that explain why the speed of propagation ("c" or "n") is invariant under any inertial reference system.

In fact, as we know very well, for an inertial system moving at a constant velocity **v** (number of space quanta per unit of time elapsed) with respect to the reference system in the direction "$\chi$," we can express the inertial system transformations as follows:

- $\varphi' = \varphi$
- $\omega' = \omega$
- $\chi' = a_{11}\,\chi + a_{12}\,\varphi + a_{13}\,\omega + a_{12}\,\tau$
- $\tau' = a_{41}\,\chi + a_{42}\,\varphi + a_{43}\,\omega + a_{42}\,\tau$

Considering that due to the geometry of the space:

- $\chi^2 + \varphi^2 + \omega^2 - n^2\,\tau^2 = 0$
- $\chi'^2 + \varphi'^2 + \omega'^2 - n^2\,\tau'^2 = 0$

The result will be:

- $\chi' = (\chi - v\tau)/(1 - v^2/n^2)^{1/2}$
- $\varphi' = \varphi$
- $\omega' = \omega$
- $\tau' = (\tau - [v\,/\,n^2]\chi)\,/(1 - v^2/\,n^2)^{1/2}$

which are, as we know, the Lorentz Transformations.

What I want to point out is that once understood as pre-geometric entities (IBOZOO UU), they can, through the information contained in their angular differences, generate in our "consciousness" by means of a powerful comprehensive algorithm (our mind aided by BUAWAE BIAEEI) the fabric of a three-dimensional angular "space" of hyperspherical geometry, contained in a four-dimensional space and developing in time, which is conceived as a one-dimensional angular space contained in a two-dimensional subspace orthogonal to the four-dimensional space, and which, in turn, due to angular differences according to other perpendicular directions, a series of singularities appear that we interpret as mass and associated phenomena. What I would like to emphasize, I repeat, is how we can establish the connection with our body of knowledge (relativistic physics, quantum physics, etc.) based on this exotic and extremely powerful pre-geometric conception of space. Once within our own field of knowledge, we should not need to demonstrate what we already know (as I have just done with the Lorentz transformations), but I have done so this time for the sake of continuity (apart from the fact that I was interested in pointing out certain peculiarities, such as the fact that the dimensions are angular, hence my insistence on using Greek letters for x, y, and z) and to point out, once again, that we are in a discrete universe, so speed (of light and any other) must be an integer "n," referring to the speed quantum$\Delta\,\varepsilon/\Delta\,\tau$).

## The expansion of the Universe, the UWAAM, electric charge, and magnetic moment

At this point, I will quickly address a number of outstanding issues.

The Universe we know, since Edwin Hubble discovered in 1929 thanks to the redshift of the spectral lines of certain known elements, implies that galaxies are moving away from each other at a speed proportional to the distance between them, which in turn means that the Universe as a whole is expanding. The Ummites tell us that they share this knowledge, although they specify that the expansion of the Universe is not constant but variable according to a non-sinusoidal periodic law and that in the early moments of the Big Bang, the speed of expansion was much greater than it is now, that is, the acceleration of the expansion was very great. This statement, made in 1967, is one of the few "falsifiable" statements (in Popper's sense) found in the Ummite documents.

**TEXT 33.- http://ummo.free.fr/data/TAB-2/41-15.htm** "On the other hand, we indicate that there was an explosion. Indeed, the immense mass of each Cosmos fragmented into particles, and these fragments, expelled violently millions of years ago, constitute the current Nebulae or Galaxies that today move at an ALMOST CONSTANT SPEED. You can see that we emphasize the word "ALMOST" because your astronomers believe that speed 2 must be CONSTANT or UNIFORM based on two false assumptions:

A- The displacement of the spectral bands in the observed galaxies is CONSTANT and oriented towards RED.

B- It seems logical to think that if nebulae are not driven by a Force Field (S41- 32a), because they originated from an initial explosion of the universe, they will move at a uniform speed2 due to inertia.

But these two premises are false and naive. A) Your measuring devices are inaccurate, otherwise you would have observed that the shift of the bands towards red IS NOT CONSTANT, it is a periodic non-sinusoidal function of almost imperceptible average amplitude, but EVALUABLE. B) You have not taken into account that our twin Cosmos exerts an "influence" on our galaxies. Specifically on UMMO, as we will show you, we discovered the UWAAM based on these interferences.
This interaction prevents our nebulae from moving at a uniform speed 2 (speed 2 = acceleration).

Thus, your measurement of the age of the universe is inaccurate because you are using as parameters this current constant pseudo-speed 2 of the galaxies and their distance from Earth. In addition, if speed 2 is almost constant NOW, **in the early stages of creation, acceleration (sinusoidal function) reached an enormous amplitude.**

The concept of an inflationary universe (with an expansion speed that varied over time and was much greater at the beginning than it is now) did not exist in 1967. The concept was not developed until 1981, when Alan Guth published the first known work on the subject (as with any theory, it is to be expected that there were previous works in this field prior to 1981, but it is difficult to accept that there were any in 1967, let alone that a group of supposed impostors posing as extraterrestrials knew about them). Later, in March 2003, the WMAP probe, which has mapped the sky background with unprecedented accuracy, revealed that its data are compatible (seem to require) an inflationary beginning of the universe.

But returning to the subject of the expansion of the Universe. How can this expansion be explained in terms of IBOZOO UU? My explanation starts from the Ummite assumption that the distance between any two IBOZOO UU is defined by the number of distance quanta between them. This is supported by the fact that if we accept, as the Ummites tell us, that the speed of propagation of a disturbance within a given WAAM

is an intrinsic characteristic of that WAAM. Furthermore, we have defined the propagation speed as:

- $c = \Delta E / \Delta \tau = \boxtimes\boxtimes \Delta \varepsilon / \Delta \tau$.

To make things easier, let's imagine that we are once again in a two-dimensional spherical universe, as defined on page 20 (referring back to Figure 13).

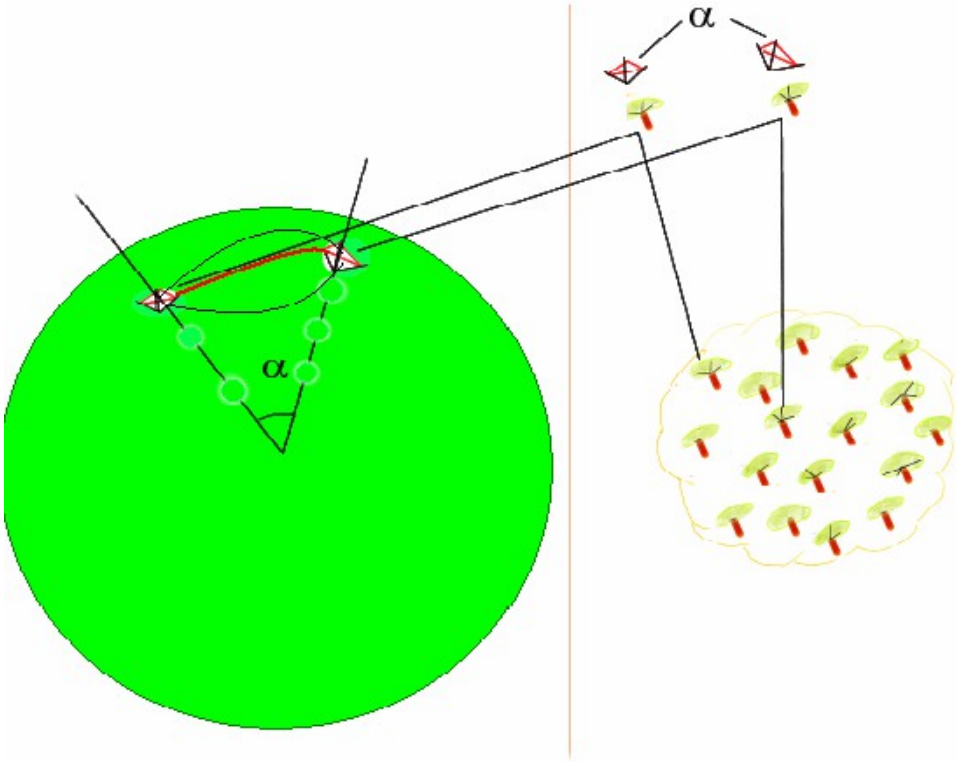



Figura 13

We see that, given that a sphere without singularities is equal to any other sphere, saying that the radius of curvature of that two-dimensional space increases is the same as saying that the angular quantum of distance on that surface decreases.

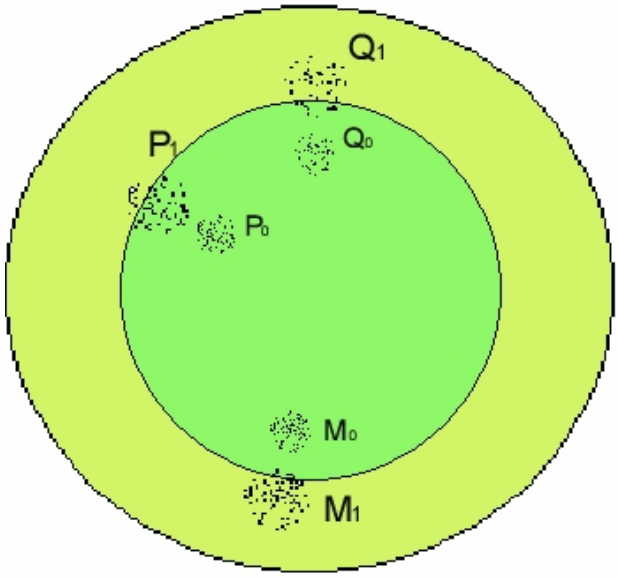



Figura 27

Indeed, if we consider the distance between galaxies $P_0$ and $Q_0$ in an isochronous section of this two-dimensional WAAM at a given instant $t_0$, the only thing that allows us to measure the distance between them is the speed of light. The longer it takes light to travel the distance between them, the greater the distance between them. Therefore, to say that the radius of curvature of the WAAM is greater at time $t_{(1)}$ is the same as recognizing that light (or a basic disturbance of the WAAM) has taken more "time quanta" to travel that distance. But the Ummites tell us that a characteristic of each WAAM is that the speed of light (that is, the number of distance quanta traveled per time quantum) is a constant (different in each WAAM), so what has happened is that the number of IBOZOO UU between those two galaxies has increased, or, in other words, the minimum angular distance between two connected IBOZOO UU has decreased. In short, given that IBOZOO UU are pre-geometric entities and that it makes no sense to speak directly of the radius of curvature, we will say that the expansion of the WAAM is nothing more and nothing less than the constant decrease of the angular distance quantum as the time angle advances. In this way, an isochronous spatial section differs from the one immediately preceding it in that the number of IBOZOO UU describing a given volume element grows as time passes. Of course, the larger the volume described, the greater the number of new IBOZOO UU. So in a relatively small volume of space (for example, our galaxy), distances appear not to vary (in addition to the fact that in concentrations of mass, it will probably be necessary to take into account the cohesion factors induced by gravitational and electromagnetic interactions, which will tend to preserve the original volume). However, if we consider the distances between distant galaxies (in nearby galaxies, their own movements due to gravitational interactions can mask this effect), we will see that a quantum of light, or in other words a disturbance wave according to electrical and magnetic orientations, will take longer to travel that distance since it will have to travel a greater number of angular quanta of distance. Furthermore, in a universe with Minkowski geometry, the wavelength of photons coming from very far away will increase because if we consider a distant source, each wave packet coming from that source will have traveled a slightly greater distance than the one that arrived a moment earlier, since the distance from the source will have increased, and this will cause the spectral lines of the elements to undergo what is called "red shift." This continuous appearance of IBOZOO UU could happen without only impacting the "flattening" of space, but many of these IBOZOO UU could encode mass in their IOAWWO according to the mass directions. This seems to be corroborated by the Ummites when they tell us in one of their letters that WOA continues to create mass inside the WAAM.

In the end, in a universe with subcritical mass (that is, without enough mass to gravitationally compensate for cosmic expansion), as ours seems to be, the expansion of space will eventually flatten and undo all those standing waves that we interpret as mass, and then only a universe of wave radiation with increasingly longer wavelengths will remain until, in the end, once they are all in phase, there will be no disturbance traveling through space and only a space without information will remain, "unraveling" in infinite time, cycle after cycle, so that only the magnitude of time will remain in that WAAM. In any case, the Ummites warn us that thanks to the evolution of the EESEEOEMMI, this may not end this way. Let's look at two texts (one of which we have already seen in Text 29) in which they tell us about this ending.

**TEXT 29.- http://www.ummo-sciences.org/fr/D41-15.htm** 336 -END OF THE WAAM AND THE UWAAM, DEATH OF THE TWO COSMOS.

What will be the end of the two twin cosmos? Taking into account the fact that WOA continues to create matter within each Cosmos, the degradation of mass into energy is much faster. There will come a time when the two universes will be reduced to a hyperspherical space-time continuum with a negative radius, but now of infinite size. Without mass concentration, that is, without galaxies, that is, without curvatures, without "folds." Only a continuous and isotropic propagation of radiation with the same frequency, because now the multiple sinusoidal functions created by WOA will have phased and ceased to produce these standing waves, these nodes and crests that our naive senses interpret respectively as "VOIDS and MASSES." Only an ocean of waves will remain, whose amplitude will decrease until the final death of the "cosmic pair."

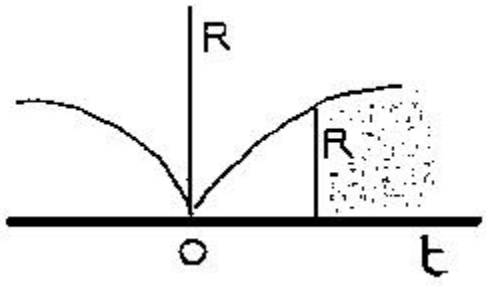
But since on UMMO we are aware of this creation, how could ATHIESM develop among us? ... If the universe were eternal, it would already be dead...

**TEXT 34.- http://www.ummo-sciences.org/fr/D731.htm** In the first phase of these Universes (negative time), entropy decreases (it was initially infinite), density increases, and their inhabitants would observe in their spectroscopic instruments a shift towards violet (a color they would certainly perceive differently), galaxies would rush towards each other. The death of this Cosmos (For these, we can speak of three deaths: the infinite radius phase that extends over infinite time) (we cannot therefore speak of birth as that of a pair of IBOZSOO UUHU *[L] (*INSTANT).
We say that the second death occurs when the radius becomes zero. The mass remains constant, the density is infinite and unstable.

At this point, the entire Universe is reduced to a network of IBOZSOO UHU, all of whose components are oriented at zero angle (zero radius) which, if we could perceive it, would appear to us as a point with infinite mass density

……/…….

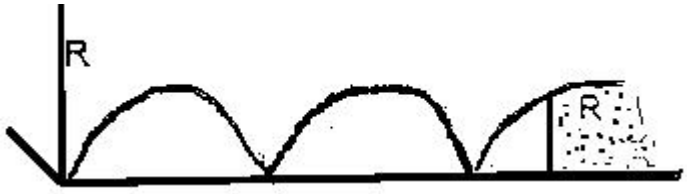
In the subcritical mass universe, its radius continues to increase:




*S731-f1*

[In reality, this is a hyperspace with two curvature radii (hypersphere (-))], its third "death" is an isotropic "crystal" hyperspace with zero density. In the two phases of Time (first decreasing entropy, then increasing entropy ending in infinite entropy), this Universe contained galaxies and negentropic "cells." (Intelligent humanities and OYAA with non-intelligent biological species—when we refer to the latter species, we mean NON-HUMAN, since the term INTELLIGENT has this meaning in this context)

What happens with supercritical mass universes? Their evolution is very different.




*S731-f2*

Their mass concentration at a point then evolves with a decreasing density at the beginning and an increasing radius, but never reaching infinity as in the previous universes. Instead, it reaches a maximum value until the point where the sign reverses, where entropy begins to decrease, where the average density increases until it collapses into a point of infinite density.
The considerations regarding WAAM described in the previous paragraph may apply to these WAAMs. In these WAAMs, too, the explosion is due to an input of energy whose function is identical. Consequently, galaxies and OYAA with biological networks also appear in these WAAMs. We ourselves have observed four of these characteristics.

## The UWAAM and the electric charge

There is hardly any information about UWAAM in the Ummite texts. It is repeated countless times that WAAM WAAM is made up of infinite pairs of WAAM and UWAAM, these two Universes (WAAM and UWAAM) being considered conjugate, symmetrical, twin, complementary pairs, etc. If we know a few things according to the texts:

- The WAAM is made up of matter (+ m) and the UWAAM of antimatter (- m). We are told that these signs + and -, referring to mass, are conventional and clarify that matter is made up of positive protons and negative electrons, while antimatter is made up of negative antiprotons and positive electrons or positrons.
- We are also told that WAAM and UWAAM have equal total mass and share dynamics, meaning that the total time measured from their birth to their death is the same for both members of the pair.
- One consequence of the equality of mass between the two members is that the speed of light within them is the same for both.
- We are told that both universes influence each other, despite the fact that there is no distance between them, through imaginary mass.
- However, despite the fact that both universes can be considered symmetrical or enantiomorphic in broad terms, the singularities according to the orientations we call mass, electric charge, and magnetic moment are not correlated, that is, the distribution of masses, galaxies, stars, etc. in each member of the pair is peculiar. This is corroborated by the mutual influence that the two WAAMs exert on each other, which is uniquely expressed in the large folds in the space-time fabric that they use as a shortcut to make their journeys.

To try to understand this, we will refer to one of the first images in this work, specifically Figure 4.

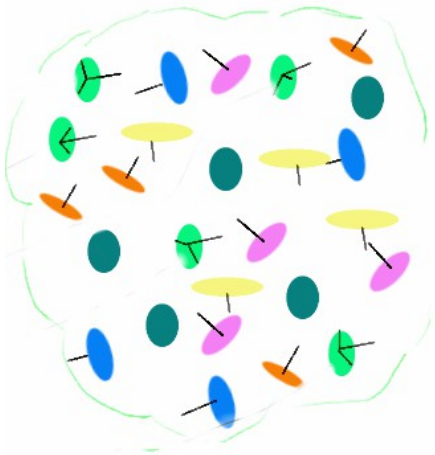


Figura 4

In this image, I tried to show how, in the pre-geometric world of IBOZOO UU (three-dimensional for simplicity), these objects, despite not being spatially located anywhere, can refer to each other through their different states of orientation. I pointed out that we could group the IBOZOO UU into sets that shared a plane of rotation for two of their axes, like small umbrellas oriented in all directions, and from among these we selected groups that had the umbrella fabric parallel, thus defining an infinite number of sets of IBOZOO UU. Then, when we extended this to the world of real IBOZOO UU, we saw that we could "extend" this selection criterion and that in the general ten-dimensional space, we could find infinite sets of IBOZOO UU such that each set was defined by the fact that its members had the characteristic that four of their OAWOO were fully contained in four-dimensional directions (subspaces) within the infinite possibilities in ten-dimensional space. Of course, it is evident that depending on which four axes we consider, the same IBOZOO UU will simultaneously belong to many transverse "sections" of the global space or WAAM WAAM. We said then that each group of IBOZOO UU encoded spatial information in the form of unrestricted freedom of orientation of the OAWOO within that four-dimensional framework, giving rise to the space in which we believe we live. It also encoded other linear information that we called time and, finally, information linked to location that we called mass and associates. Of course, since there are infinite four-dimensional orientations within the WAAM WAAM and since each of them corresponds to a different total mass, we will have infinite WAAMs, each with its own mass, and of course the relationship between these groups of IBOZOO UU (each WAAM) is (in principle and according to our current data) non-existent. But returning to Figure 4, if we look closely at the small umbrellas, we will see that there is a restriction in the drawing, although in this case it was an intentional omission. In fact, all the rods of the small umbrellas point in the same direction! Obviously, if we had really considered ALL the IBOZOO UU, we would have to have orientations of the third axis (the one that does not rotate in the two-dimensional subspace) towards both sides of the fabric, something like what we have in Figure 28 below.

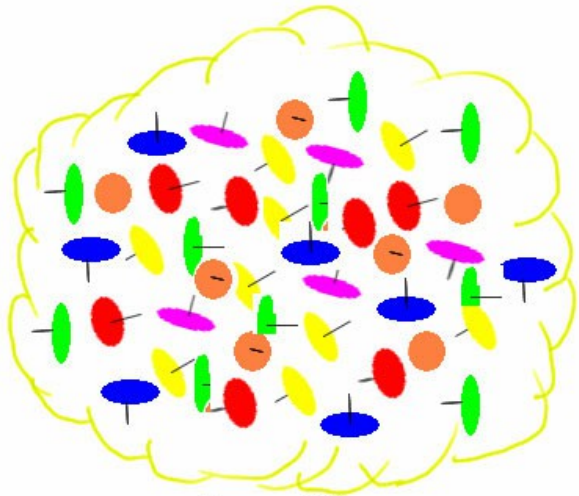


Figura 28

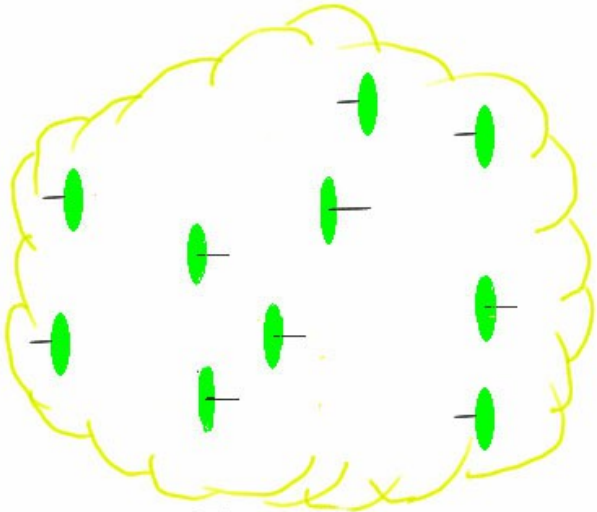


Figura 2 9

In Figure 28, we have represented the infinite (countable) IBOZOO UU (of 3D) which, being pre-geometric, are nowhere. They are prior to space and time. They are AAOODII in Ummite terminology or Noumena in Kantian terminology. They are prior to the psychological composition we call space, which we are (were) convinced really existed "out there" as something prior to reality, like an empty container in which reality unfolds. As Newton called it when speaking of space, "sensorium Deo" (the sensorium of God, the organ through which God "feels"). However, we have seen that these IBOZOO UU can encode information by angular differences, and we have also seen that a complex interpretative algorithm, but one that is highly correlated with the intrinsic characteristics of information, converts this (the information) into space, time, and mass in its mental or psychological representation format. In Figure 29, we have selected from among these infinite IBOZOO UU only those infinities that are oriented in the "green" direction. If we look closely, the difference with Figure 4 is that we have now also selected as belonging to the green orientation group the symmetrical trihedra that we had taken before, that is, those whose third axis is oriented in the opposite direction. If we now return to the mathematical representation we have been using, we see that in this new group of IBOZOO UU that we have added, one of them (the symmetrical one) can be represented with respect to the reference one, as follows:

$$\text{I.U. (symmetrical)} \equiv \begin{Vmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & -1 \end{Vmatrix}$$

$$\text{I.U. (ref.)} \equiv \begin{Vmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{Vmatrix}$$

More generally, IBOZOO UU belonging to this symmetrical group can be represented as follows:

I.U. (General of the symmetric space) η

$$\begin{Vmatrix} a11 & a12 & 0 \\ a21 & a22 & 0 \\ 0 & 0 & - \end{Vmatrix}$$

If we return to the real world of ten-dimensional IBOZOO UU, what I am trying to indicate with all of the above is that there will be within the set of IBOZOO UU that orient their OAWOO in subspaces parallel to those of the WAAM we are considering, a group (half of the IBOZOO UU) such that one of their OAWOO (the one with the mass direction) is oriented in the opposite direction to that of the other half of the IBOZOO UU, and in this way one of the groups encodes the WAAM and the other the UWAAM.

CRITICISM OF THE ABOVE.

It is clear that the way I have just explained the existence of WAAM and UWAAM is very simple and almost certainly wrong. However, I wanted to express it, as I think the basic idea is good. It is not really that I believe that this is exactly how the WAAM UWAAM pair is encoded, but I do believe that the solution lies in the direction indicated, that is, that in the set of IBOZOO UU that encode a given three-dimensional space, half of them have their OAWOO encoders of the mass complex and associated mostly pointing in one direction and the other half in the other. Given that this analysis of the IBOZOO UU is intended to be nothing more than a descriptive approach to them, I think it is justified to present these ideas, which are still very much a work in progress.

To conclude this work, I would like to point out a few more ideas that I am still working out. I believe that from the set of mass and associated orientations, we must distinguish those that encode the electric and magnetic fields from those that encode mass. Specifically, at this point, I think that the OAWOO UXGIGII, which encodes three-dimensional space when "rotating" in the four-dimensional subspace that generates the selected WAAM direction, is not oriented exclusively within the aforementioned four-dimensional subspace, but may have an (extremely small) component within the mass direction. This is as if the fabric of the umbrella of the metaphorical 3D IBOZOO UU in Figures 4 and 28 and 29 could be wrinkled and therefore have a component, even if minimal, in the direction of the umbrella pole. In the matrix representation we are using, this would be expressed as follows for the WAAM:

$$\begin{Vmatrix} a00 & a01 & a02 & a03 & 0 & 0 & \Delta\varphi & 0 & 0 & 0 \\ a10 & a11 & a12 & a13 & 0 & 0 & \Delta\eta & 0 & 0 & 0 \\ a20 & a21 & a22 & a23 & 0 & 0 & \Delta\theta & 0 & 0 & 0 \\ a30 & a31 & a32 & a33 & 0 & 0 & \Delta\sigma & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & a44 & a45 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & a54 & a55 & 0 & 0 & 0 & 0 \\ \Delta\alpha & \Delta\beta & \Delta\gamma & \Delta\varphi & 0 & 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & a77 & a78 & a79 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & a87 & a88 & a89 \end{Vmatrix}$$

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | a97 | a98 | a99 |

And for the UWAAM:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| a00 | a01 | a02 | a03 | 0 | 0 | $\Delta\varphi$ | 0 | 0 | 0 |
| a10 | a11 | a12 | a13 | 0 | 0 | $\Delta\eta$ | 0 | 0 | 0 |
| a20 | a21 | a22 | a23 | 0 | 0 | $\Delta\theta$ | 0 | 0 | 0 |
| a30 | a31 | a32 | a33 | 0 | 0 | $\Delta\sigma$ | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | a44 | a45 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | a54 | a55 | 0 | 0 | 0 | 0 |
| $\Delta\alpha$ | $\Delta\beta$ | $\Delta\gamma$ | $\Delta\varphi$ | 0 | 0 | -1 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | a77 | a78 | a79 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | a87 | a88 | a89 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | a97 | a98 | a99 |

As for the charge, we know that electrostatic interaction is about $10^{39}$times greater than gravitational interaction. If we recall what we saw on page 44 about orders of magnitude, we see that this order of magnitude corresponds to the relationship between a quantum of space and the current distance in our universe. My interpretation of this is that just as in the mass direction the space-encoding OAWOO (OAWOO UXGIGII) "penetrates" a few minimal elements of IOAWOO in the mass direction, the electromagnetic complex can only take on the values 0, $+\pi$ *and* $-\pi$. If we assume the principle already stated in the paper, that we can trace the evolution in time of the c-continuum space-time by "reading" the WAAM in the sense of more information (that is, A**)** in the sense of the evolution of mathematical functions of random distribution along a variable that we identify with time, for elementary particles, B**)** statistical evolution for systems with a large number of elements, and finally C**)** directly from psychological information increase for intelligent systems), we have said that this information increase occurs because in more advanced isochronous sections in time, the IBOZOO UU are "reached" by the displacements of the perturbations according to the mass and associated directions, and that when two or more different perturbations access the same IBOZOO UU, the result is that this IBOZOO UU expresses orientations of its OAWOO such that they encode the sum of the perturbations that reach it. Well, if we have that, according to the electric and magnetic directions, the IOAWOs that encode the particle (this is the maximum) can take values of 0, $+\pi$, *and* $-\pi$, we will have that for the value $+\pi$ or $-\pi$, it cannot be "added" more in that direction, since they are the maximum distance for a circular (angular) dimension and therefore two maxima of the same sign ( $+\pi$) will repel each other, while if they are of opposite sign, they will attract each other.

Obviously, this is again a proposition full of contradictions (such as how several positive charges can coexist in a nucleus, for example), since the model I am presenting does not explain the nuclear cohesive force (strong force) at all, but I think the image is suggestive and that is why I am presenting it.

I am presenting does not explain the nuclear cohesive force (strong force) at all, but I think the image is thought-provoking and that is why I am expressing it.

## EPILOGUE

I am aware that the interpretation model of the IBOZOO UU theory that I have just presented is almost entirely descriptive, and that in order to achieve something valid and minimally acceptable, a great deal of mathematics is required. Unfortunately, I have long lacked the necessary foundation to tackle a program capable of giving mathematical form to these descriptive intuitions. However, to the best of my ability, I am refreshing my training in physics and hope to gradually expand my understanding of this extraordinarily beautiful Theory of Everything. If anyone is interested in my approach and would like to clarify any points that may have remained unclear or would like to collaborate in this development, please feel free to contact me.