

Intention Physics

Vincenzo Peluso¹

A Theory of everything must spring from a metaphysics but must necessarily rest on logics. The aim of this paper is to show the theory of everything: it needs a new conceptual framework, a new geometry, a new mind, a new language.

A critical examination of the conceptions of memory, movement, time and space brings to light the primitive space where relativistic physics and quantum mechanics can meet. Furthermore, it highlights the distinction between the true time that opens in the decision between the previous moment and the successive one, and the mnemonic time, trace spatialised in the moment, in which the evolution of the emergent phenomena is reflected. Finally, recognizing space, time, electricity and gravitation as four different aspects of one sole substance, we come to the only unit measure and to the only equation that, devoid of singularity, unifies all the natural interactions, without disagreement with any experimental result, and throws light on the shape and origin of the universe and on matter organization.

“Plainly therefore in the science of Nature, as in other branches of study, our first task will be to try to determine what relates to its principles.

The natural way of doing this is to start from the things which are more knowable and obvious to us and proceed towards those which are clearer and more knowable by nature; for the same things are not 'knowable relatively to us' and 'knowable' without qualification. So, in the present inquiry we must follow this method and advance from what is more obscure by nature, but clearer to us, towards what is more clear and more knowable by nature.” Aristotle physics

We call Intention the unique and universal Interaction between two Individuals which is composed by the cyclical alternation of two moments. In the Consummative moment, as result of a decision, the individual donates/receives a part of self to/from its other, which is its universal. In the Mirroring moment, which is the potentiality period between two Consummative acts, the individual mirrors in itself and is mirrored by its other.

The decision, which lies in the live true time, is the only jump from a state to a new state, the only newness that changes the world. Now, since all that exists, it exists in the intention, and the nesting of intentions gives place to new reflective intentions of higher level, the sole principle of intention physics is not limited to the bottom intentions, but it extends to whichever intention to whichever reflective level it could emerge.

We call Reflection what emerges as a new and higher layer which takes form quantitatively from the huge number of consummative acts below. Reflection flourishes

¹ Present address: Via don Bosco, 11 00045 Genzano di Roma, Rome Italy
e-mail: fmsv.peluso@gmail.com

from Consummation and gives place to a new level of reality and so on since the individuals of every new level too relate each other through consummation. Indeed, reflection gives place to increasingly complex synthesized universals, characterized by more and more reflectively emergent attributes, and reveals the evolution in time of complex individuals in the period of potentiality, between consummative acts, and even the instantaneous (for definition) exchange of a reflective complex object of donation. The exchange of the object of donation in the intention is always, by definition, instantaneous also if it, if complex, can appear, to an external observer, as traveling in time since, as composed of parts, these latter are engaged in a different and more primitive intention with the observer. Nevertheless, the unique relation, to whichever emerging level of reality and complexity, is the Consummation. Consummation is interior, existential, primitive; reflection is exterior, objective.

In the intention, every individual mirror its other without and before the possible consummation. Mirroring and reflection are therefore dual, one is the form (the universal) and the other is its fulfilment (an instance). Having clarified the difference, in the following, for simplicity, we will call reflective both reflection and mirroring. Classical physics first of all, but all entire and possible physics as predicting capability indeed, is reflective. Logic is the structure of reflection. Memory is reflective. Mechanism is reflective. Evolution and history are reflective. The spacetime and geometry are reflective. Necessity and chance are reflective. Reflective is what appears from the consummations of the huge amount of underlying intentions. Reflective, for two individuals in their intention, is all the other to the intention that therefore is appearance and forms the context of the decision. Theory is reflective. Its existence demonstrates the Principle of Reason (Ground). It claims that the present is based on the reflective historical reconstruction of the past, until the reflection vanishes with the rarefaction of the number of underlying consummation acts.

In its most primitive form the reflective Intention is a relation between two reflective individuals, characterized by only a radius $R_\bullet$ (the Schwarzschild radius), which represents all the energy that the individual has and can donate, and that turns in a spin ω , such that $\omega \equiv R_\bullet$, in a finite three dimensional space that represents the potency of relation, and is engaged in a cyclic intention with its conjugated, whose period depends on the radii of the two conjoined individuals, according to the schema of fig.2.

Both classical physics and Intention physics are necessarily reflective, since pure consummation is an existential, but they differ in the point of view. The point of view of Intention Physics is consummative, that of the relation of a concrete individual with its other, characterized by the cyclical instantaneous exchange of energy, which describes all the past and the future as it appears mirrored in the present instant. In the intention, the time is the live true time. Limited to the scope of a concrete intention, all present in an instant, there are not events neither therefore spacetime but only two conjoined individuals and the nesting of exchange of their substances which link them forming a geometrical progression originated from the frequency of intention. The metric is consequently linear, the disentangling of a unique path. The instantaneousness of exchange and the angle between the temporal axes of

two conjoined individuals in intention shrinks the world (the potency) in a receiving and a donating side.

All the datum is in the snapshot of a single instant of an individual (in the act of receiving or in the act of donating). It contains the totality of the potency of the present and the totality of the memory. We have nothing else but what is given in the present instant. The previous instant and the next instant are not given. The flow of time, which is an existential, is therefore outside the range of physics. Since the component threads are the disentangling of a unique path, time is defined as the summation of its components $\Delta T = \Delta S = \sum \Delta s_i$ and therefore is not continuous.

From the multiplicity of intentions emerges the reflection and the Complex individuals, with complex reflective attributes, which evolve reflectively other than consummate. Nevertheless, the potency has its constraints and therefore a form. The acts of Consummation modify the configuration of the relation (the distances) and therefore leave their traces modifying the form of the more complex individual which emerges from its parts. Each individual is in relation with each other individual and the nesting of relations gives place to emergent reflective individuals of higher level. Each individual is part of another individual more complex, in it finds its own place and a role, and so on until the universe, which is itself an individual.

From the image present in the snapshot of an instant, it is possible identify the reflective complex individuals in intention endowed with an intrinsic clock (the intention is cyclic). It is possible, therefore, recognize a geometrical progression reorganizing them on two dotted spinning temporal τ axis (one for each one of the two conjoined reflective individuals) and the relative orthogonal spatial planes.

Every intention has its place in an individual more complex of which is a part of, and so on until the universe. Therefore, in the barycentre of the present now of the intention, we can refer the above individual axes to the spatial **J** axis of mass or potency and to the orthogonal spatial **I** axis of the movement (reflective evolution) and to the orthogonal temporal **K** axis of the energy or of the local Universe time.

The emergent reflection illuminates the form of the complex individual and returns its image which is all the memory and all the potency at hand, all present in the instant.

The point of view of classical Physics is that of a generic external observer abstract from any particular intention. Abstract from its natural seat, time must be the time external and common to all possible or real relations and then per se and continuum, and analogously space. They become two separate dimensions of a same reflective spacetime which is not, anymore, an attribute of a particular intention but acquires an artificial identity in self, it becomes the scenario of the independent events. Differently from Intention physics, where the appearance in the act of the two conjoined individuals last only an historical instant, determined and concomitant with the therefore instantaneous exchange of energy which links them, in the classical physics the individuals last in time independently from each other and therefore last in time the exchange of energy which now travels with a finite velocity. Nevertheless, all that is real in the Intention Relation must be preserved in the reflective spacetime and therefore these two profoundly different points of view must be reconciled. Hereafter the way. The point of contact between classic physics and Intention physics are necessarily the points τ , since they represent the real absolute events and must be true on every real

reference system, and more generally the periods $\Delta\tau \equiv \Sigma(\Delta\sigma)$. Nevertheless, there are not other constraints, and we are therefore free to define an artificial larger space that, beyond the spatial dimension S , incorporate the symbol $\Delta\tau$ ($\Delta\tau \equiv \Sigma\Delta\sigma$) transforming it in a new artificial independent and continuous dimension.

This is mathematically possible defining s as a vector and t as an orthogonal complexified vector (multiplied by pseudoscalar $i=\sqrt{-1}$) so that

$$\|\sum f_1 \Delta \vec{s} + f_2 i \Delta \vec{t}\| \equiv \sum \Delta \sigma - \Delta \tau$$

The right member represents the datum of reality which is a linear relation, the left member represents the isomorphic vectorial transform in the Minkowsky spacetime.

Of course, we can extend the vectorial transform

$$\|\sum f_1 \Delta \vec{s} + f_2 i \Delta \vec{t}\| \equiv \Delta l \equiv \sum \Delta \sigma - \Delta \tau \equiv \|\sum \Delta \vec{\sigma} - i \Delta \vec{\tau}\|$$

and at last leave completely the original form of datum

$$\sum f_1 \Delta \vec{s} + f_2 i \Delta \vec{t} \equiv \Delta \vec{l} \equiv \sum \Delta \vec{\sigma} - i \Delta \vec{\tau}$$

On the path of light, we have $dl^2 = 0$ which admits two solutions:

$$i f_1(ds) + i k f_2(dt) = 0$$

$$i f_1(ds) - i k f_2(dt) = 0$$

We can now extend this method and extend the Minkowsky spacetime incorporating the vectorial symbol $\Delta \vec{l}$ ($\Delta \vec{l} \equiv \sum f_1 \Delta \vec{s} + f_2 i \Delta \vec{t}$) transforming it in a new artificial

independent and continuous dimension. This means that we can transform the symbol l in a new artificial dimension ijl , that adds beside S and $iT : (is, ikt, ijl)$, so that the annulling of the length $f_1^2 (\Delta S) - f_2^2 (\Delta T) - \Delta l^2 = 0$ is no longer obvious but signifies the belonging of the measure dl to the metric of the reflective spacetime or, in the final analysis, to the metric of Intention. The last identity admits four solutions:

$$i f_1(ds) + i k f_2(dt) + ij dl = 0$$

$$i f_1(ds) - i k f_2(dt) + ij dl = 0$$

$$i f_1(ds) + i k f_2(dt) - ij dl = 0$$

$$i f_1(ds) - i k f_2(dt) - ij dl = 0$$

Given the metric in the abstract spacetime, these solutions are, in abstract, always true for whichever dl : they are mathematical trigonometric identity. They become concrete when we put dl equal to the absolute radius R of the individual: in this case they correspond to the Dirac equations.

Indeed, we can found the Intention metric on the simple fact that the path of light between two consecutive exchange (tread) is given by:

$$kT \equiv \Sigma(\Delta S) = i S_1 + j R + i S_2$$

and therefore

$$i \Delta S \pm i k \Delta T \pm i j R = 0 \quad \text{or} \quad i \Delta p \pm i k \Delta E \pm i j m = 0$$

In the above equation, the complex terms (i, ik, ij) highlight that space, time and mass/energy are different aspects of the same thing, that is expressed by numbers.

Above all, in the equation mathematics is incarnated in physics: they become one thing, a body and a soul.

The space of the Intention relation is limited and corresponds therefore to the subset

$$i \Delta p \pm i k \Delta E \pm i j m = 0$$

of the spacetime of classical physics.

SECTION I THEORY

The structure of intention

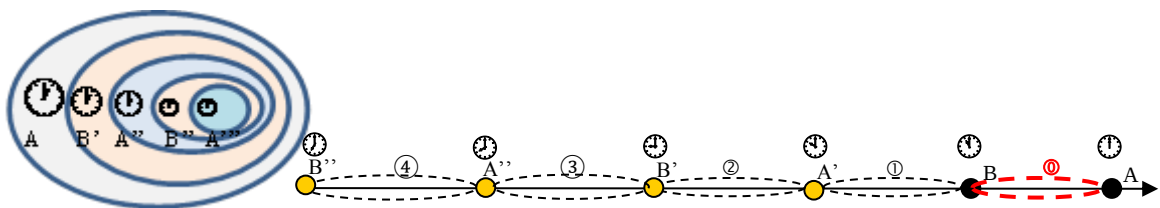
The point of view of Intention physics is that of the individual in the cyclic relationship with its other. The centre is the relationship, in and for itself, as seen from the involved individuals. It is essentially existential, since its core is the change between a state of potentiality and the next via the decision which takes place instantaneously in the live true time of freedom. The live true time of the act and the space of potentiality are the same. The internal and the external of an individual.

The intention relationship of potentiality is the object of physics. In its primitive form, it is the quantum mechanics which deals with potentiality. On the other side, as emerging reflectively from the huge amount of intentions, it is classical physics which deals with reflection.

The relationship in and for itself can be completely geometrized since the difference between itself with its other is distance and all their past, present and future potential exchange links give place to a linear spacetime where the spatial distance is the temporal period and vice-versa.

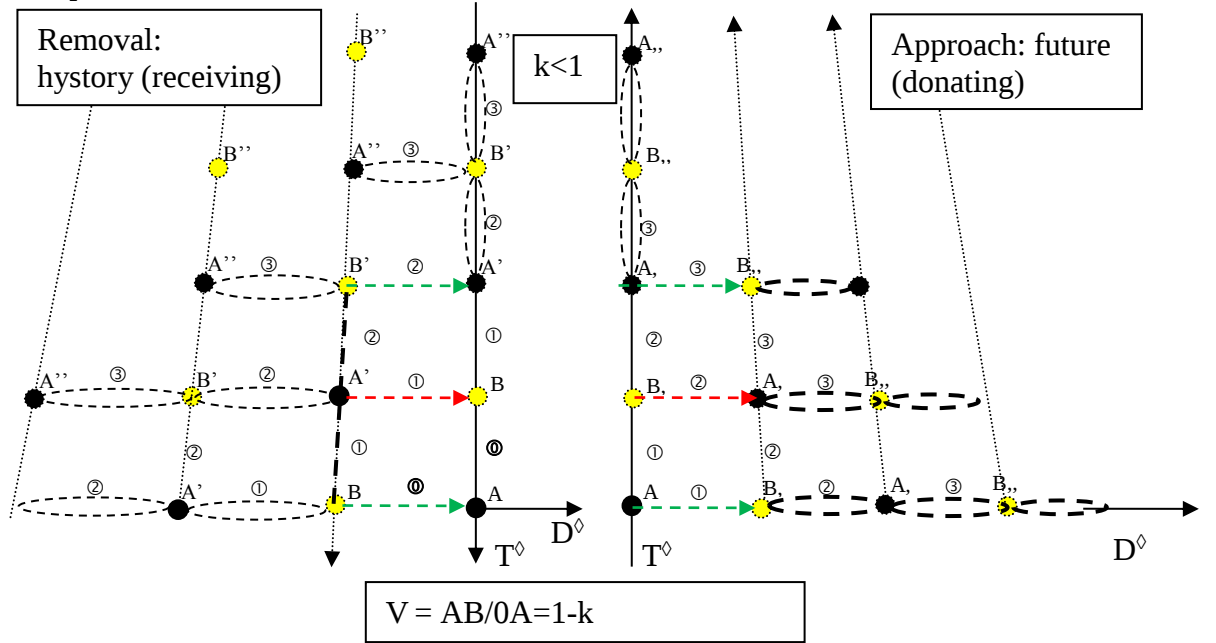
Because the sole universe thread is sequential, without loops, polar-axes of different individuals never intersect each other, neither two spatial axes, but each spatial axis intersects every polar axis and vice-versa.

Measure is based on the memory which must be present in the instant. The image is reflective. The watch is reflective and is a kind of memory. Because the measure is reflective, it does not take place in the live true time, which is an existential, but in the spacetime of an instant. Therefore, the measure takes necessarily place in the instant. Because the observer and the observed as individuals are meters, each one measures and is measured by the other. Because the observer and the observed as individuals are mirrors, each one reflects and is reflected by the other recursively. Therefore, the observer can see, in the snapshot of the state of the instant, all the historical reflective succession of its own figures and of the figures of the other, and can measure the spatial and temporal distances between every couple of them in order to deduce velocities and accelerations. Let's consider the progression ..., 1, K, K^2 , ... in the historical reconstruction of periodic reflection between individuals A and B where, evidently, there is one only unit of measure and where we attribute the odd terms to the individual A (history of A) and the even terms to the individual B (history of B).



We can equivalently represent the mirroring progression either on a spatial path, since it is all present in the now, or on a temporal path, since it is all present at this point.

We can equivalently represent the succession on a matrix intersecting the temporal and the spatial paths.



More generally, on the path of light, at every reflection, we have an increment of the scale factor exponent:

$$\text{a) } s^{\diamond}_n = k s^{\diamond}_{n-1} \text{ or} \quad [1]$$

$$\text{b) } s^{\diamond}_{nn} = \int s^{\diamond}_i = 0$$

Where k is greater than 1 in removal, less than 1 in approach or we can consider always $k < 1$ and the receiving moment in the removal and the donating moment in the approach. and then $\Delta T^{\diamond} = P^{\diamond}$ $\Delta \lambda^{\diamond} = P^{\diamond} - P^{\diamond}_{-1}$ $V^{\diamond} = \Delta \lambda^{\diamond} / P^{\diamond} = 1 - k$

Indicating with $s^{\diamond}_0$ the distance now on the spatial axis between A and B we have that:

$$\Delta T_a = \frac{s_0}{1-k} = s_0(1 + k + k^2 + k^3 + \dots) = s_0 + (k s_0) + (k^2 s_0) + (k^3 s_0) + \dots = s_0 + s_1 + \dots s_n$$

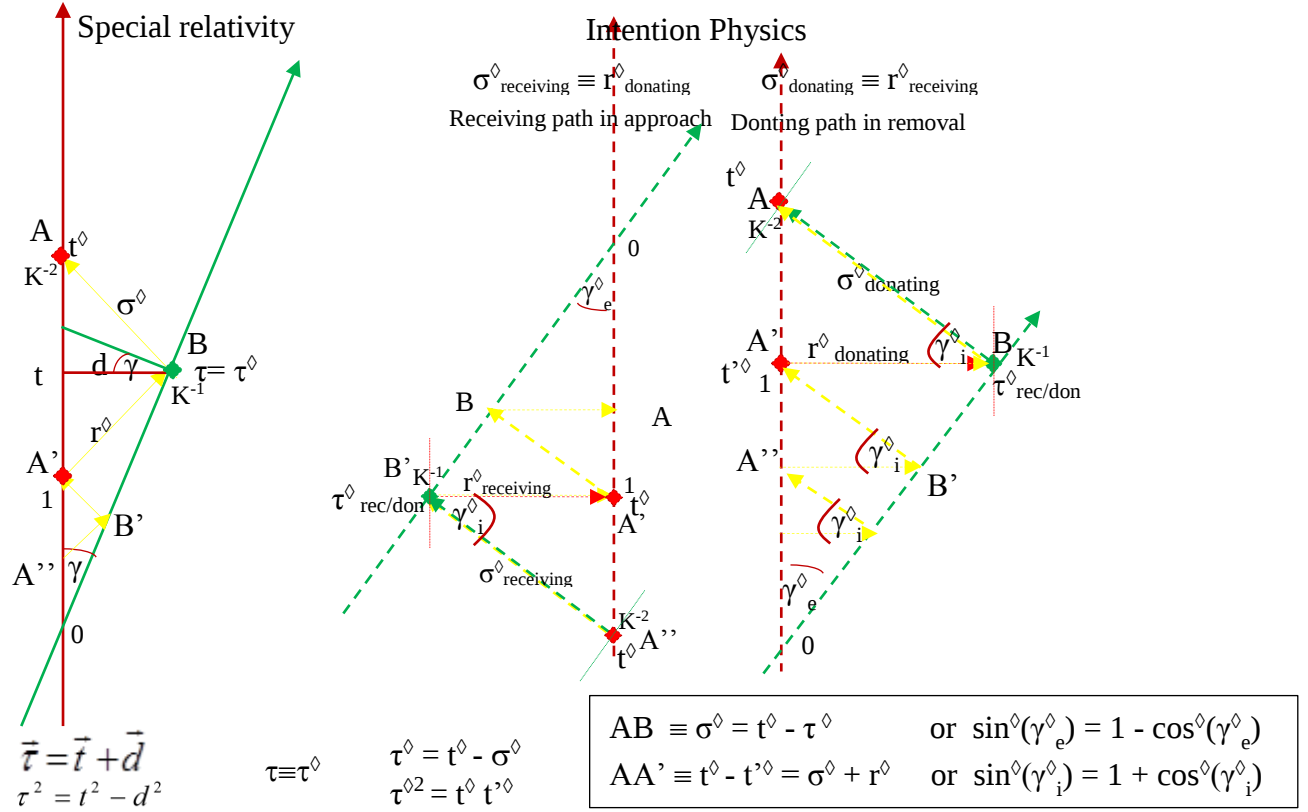
If we look closely at path above, we can realize that every spatial thread is an alternation of the receiving/donating acts of the two individuals in intention: at the receiving act of each individual must correspond the donating act of its other and vice versa.

We can therefore introduce the explicit representation of the two conjoined individuals and reorganize the same tread of points both on a temporal axis, which represent the identity and the permanence of the “self”, as an historical reconstruction, and on relative orthogonal axis as spatial distances, which represent the difference of the “other”.

In Intention physics the time is defined only in the points of act A,B,A',B', ...since, between a point of act and the next one, the period of potency extends. Analogously space is defined only on the segments AB ecc.

These points and these segments are the only real, and therefore absolute, and therefore are the only one that must have an equivalent representation (isomorphic) in whichever representation of the reality (isomorphism).

We can therefore represent the recursive mirroring between A and B in the schema on the right and compare it with Minkowsky schema used by relativistic physic on the left.



We can see that, setting $\tau = \tau^\diamond$, it is possible an isomorphic representation of the reality, represented by the intention schema, defining $t \equiv t^\diamond - d$ and $d \equiv (\sigma^\diamond + r^\diamond)/2$ so that to the linear metric of the intention physics corresponds the vectorial metric in the Minkowsky spacetime of classic physics.

relativistic spacetime

$$\bar{\tau} = \bar{t} + \bar{d}$$

→

linear intention space

$$t^\diamond = t + d = \tau / \cos^\diamond \gamma^\diamond$$

$$t'^\diamond = t - d = \tau \cos^\diamond \gamma^\diamond$$

Or

$$\tau \cosh \gamma \hat{t} + \tau \sinh \gamma \hat{d} = \tau \hat{\tau}$$

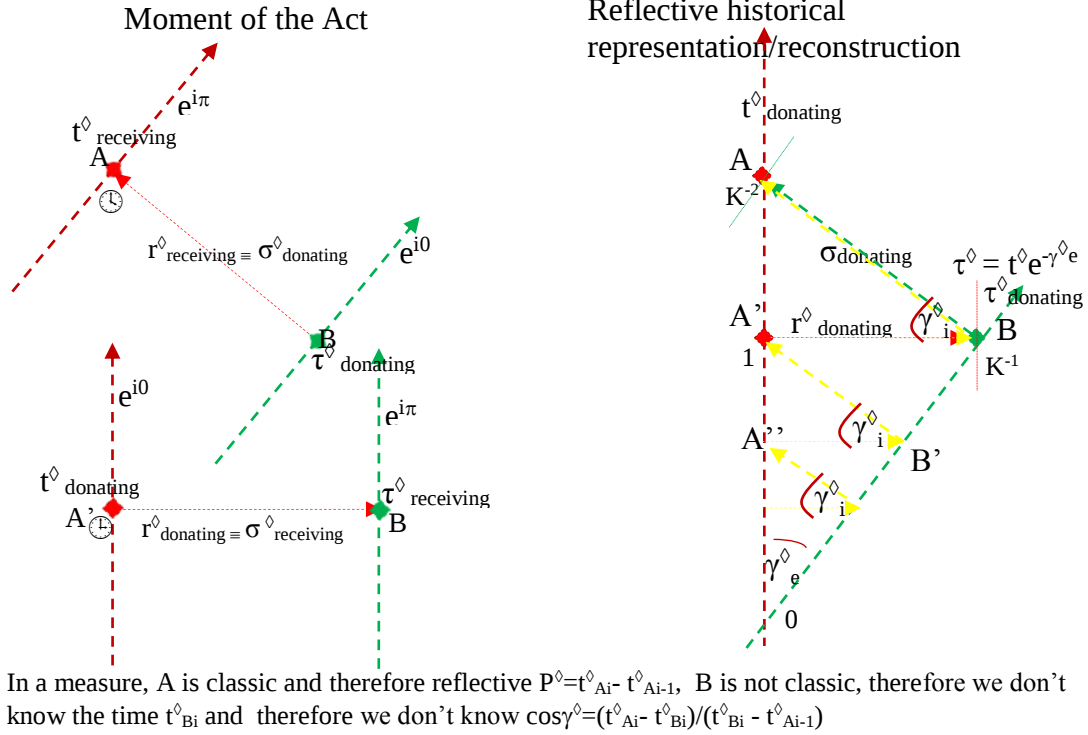
→

$$\begin{cases} \tau \cosh \gamma - \tau \sinh \gamma = \tau \cos^\diamond \gamma^\diamond \\ \tau \cosh \gamma + \tau \sinh \gamma = \frac{\tau}{\cos^\diamond \gamma^\diamond} \end{cases} \quad [2]$$

Replacing τ with the mass m , it's easy to identify the vectorial sum on the left with the Dirac's free particle Equation, and the linear sum on the right with the definition of $\sinh$ and $\cosh$ if we allow, as will soon be shown, $\cos^\diamond \gamma^\diamond = e^{-\gamma}$.

The Uncertainty principle springs from the lack of memory in the primitive intentions. Indeed, physics is based on memory. Now memory is reflective. Yet reflection has not place in a primitive intention, not therefore memory.

Intention Physics



In the intention, we have the period of potentiality, which is imaginary, and the moment of the act, which is real.

In every moment, the individual is suspended between the previous act and the next in the space of potency. All the nesting of spatial path of the myriads of previous acts is only a reflective reconstruction, which give place to the memory and to the image of present context where mature the decision. In this suspension is the flow of existential time.

$$\Psi(x, t) = A e^{\frac{i}{\hbar}(p x - E t)} = A e^{i 2\pi \left(\frac{x}{\lambda^\diamond} - \frac{t}{T^\diamond} \right)} \quad \text{where } \lambda^\diamond = \hbar R^\diamond / V \text{ or } \lambda = \hbar R^\diamond / v$$

The donor and the receiver must be synchronized to have same period but opposite phase in the moment of the act.

To know position and moment of the other in a given time, we must know the angle $\gamma^\diamond$ of the relation which is formed of the time of donating, or of receiving, of both individuals. Yet, in the act, we have never this case but, on the contrary, the receiving side of the one face the parallel donating side of the other and viceversa.

We can partially reduce this inherent lack of knowledge by putting the measuring individual as reflective but, differently from classical physics, in the quantum physics the measured individual is not reflective and therefore, if we can know its distance, we can't read its time too and therefore we can't know the $\gamma_e^\diamond$ angle of relation. This is the origin of uncertainty principle.

In other words, the period of potency (between the act of receiving and the act of donation) of an elementary (electric) individual lasts $\Delta T = R \cdot^{-1}$, and this is the discrete unit of measure of the time of the individual. Therefore $\Delta T \Delta E \geq 1$.

In other words, in every instant the receiving side of an individual face the parallel donating side of the other and, therefore, the intention schema, composed from the juxtaposing of homologue sides of the two conjoined individuals, is only a construction for needs of knowledge representation. It is the begin of reflective knowledge which demands the determination of the angle $\gamma^\diamond$ of the relation given by the homologue side time of both individuals.

From the point of view of individual "a" in the Intention, the light is instantaneous and forms the path of donating and receiving threads with his other, whose lengths can be measured both as temporal intervals that as spatial distances in a linear metric $\sin^\diamond \gamma + \cos^\diamond \gamma = 1$. The familiarity of intention schema is in appearance only.

In the mirroring representation, since the recursive mirroring is the disentangling of a unique path, the angles between the two temporal axes τ, t and between the two orthogonal spatial axes σ, s form two angles $\gamma_i^\diamond$ and $\gamma_e^\diamond$ corresponding to the real and supplementary $\gamma_i^\diamond = -\pi + \gamma_e^\diamond$ angles. The angles are $\gamma_e^\diamond$ when both the axes are in a concordant direction, vice versa $\gamma_i^\diamond$ when opposite, and they alternate each other. The angle opposite to $\gamma_x^\diamond$ is $\gamma_{\bullet x}$

Intention Physics

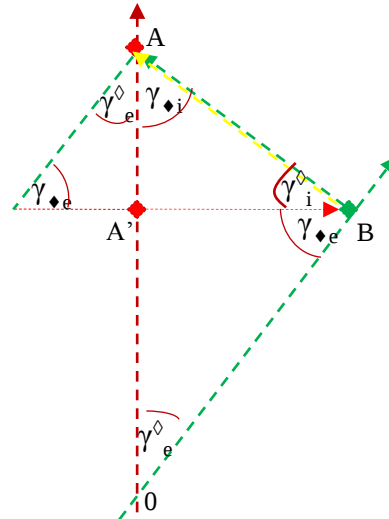
Vector oriented space where

$$\|\vec{A} + \vec{B}\| = \|\vec{A}\| + \|\vec{B}\| \quad \oint \vec{s}_i^\diamond = 0$$

$$\gamma_i^\diamond = -\pi + \gamma_e^\diamond$$

$$\gamma_{\bullet e} = \pi/2 - \gamma_e^\diamond = -\pi/2 - \gamma_i^\diamond$$

$$\gamma_{\bullet i} = -\pi + \gamma_{\bullet e} = -\pi/2 - \gamma_e^\diamond$$



Where the relations between quadratic and linear trigonometric functions are:

$$\begin{aligned} \cos^\diamond \gamma_e^\diamond &= \cos \gamma_e^\diamond & \sin^\diamond \gamma_e^\diamond &= 1 - \cos \gamma_e^\diamond & \sin^\diamond \gamma_i^\diamond &= (2 - \sin^\diamond \gamma_e^\diamond) = 1 + \cos \gamma_e^\diamond \\ \sin_\bullet \gamma_{\bullet e} &= \sin \gamma_{\bullet e} & \cos_\bullet \gamma_{\bullet e} &= 1 - \sin \gamma_{\bullet e} & \sin_\bullet \gamma_{\bullet i} &= 2 - \sin \gamma_{\bullet e} = (1 + \cos_\bullet \gamma_{\bullet e}) \end{aligned}$$

$$\begin{aligned} \cos^\diamond \gamma_i^\diamond &= -\cos \gamma_e^\diamond & \cos_\bullet \gamma_{\bullet i} &= 1 - \sin \gamma_{\bullet i} = 1 + \cos \gamma_e^\diamond \\ \cos \gamma_e^\diamond &= \sin \gamma_{\bullet e} \end{aligned} \quad [3]$$

and $K^\diamond = \cos^\diamond \gamma^\diamond = e^{-\gamma}$ and $1-K_\bullet = \sin_\bullet \gamma_\bullet = e^{-\gamma}$

Furthermore, denoting by $+\diamond$ the reflective sum of two angles, we have $(\varphi +^\diamond \psi) \neq (\varphi + \psi)$

$$\begin{aligned} \cos^\diamond(\psi +^\diamond \varphi) &= \cos^\diamond \psi \cos^\diamond \varphi - (1 - \cos^\diamond \psi)(1 - \cos^\diamond \varphi) = \cos^\diamond \psi + \cos^\diamond \varphi - 1 \\ \cos^\diamond(\psi -^\diamond \varphi) &= \cos^\diamond \psi \cos^\diamond \varphi + (1 + \cos^\diamond \psi)(1 - \cos^\diamond \varphi) = \cos^\diamond \psi - \cos^\diamond \varphi + 1 \\ \cos^\diamond\left(\frac{\pi}{2} +^\diamond \gamma\right) &= \cos^\diamond \frac{\pi}{2} + \cos^\diamond \gamma - 1 = -(1 - \cos^\diamond \gamma) = -\sin^\diamond \gamma \\ \cos^\diamond(\pi -^\diamond \gamma) &= \cos^\diamond \pi - \cos^\diamond \gamma + 1 = -\cos^\diamond \gamma \end{aligned}$$

For $\gamma^\diamond = \varphi +^\diamond \psi$ $\sin^\diamond \gamma^\diamond = \sin^\diamond \gamma_e^\diamond$ when $|\gamma^\diamond| \leq \pi/2$ $\sin^\diamond \gamma^\diamond = \sin^\diamond \gamma_i^\diamond$ when $|\gamma^\diamond| \geq \pi/2$

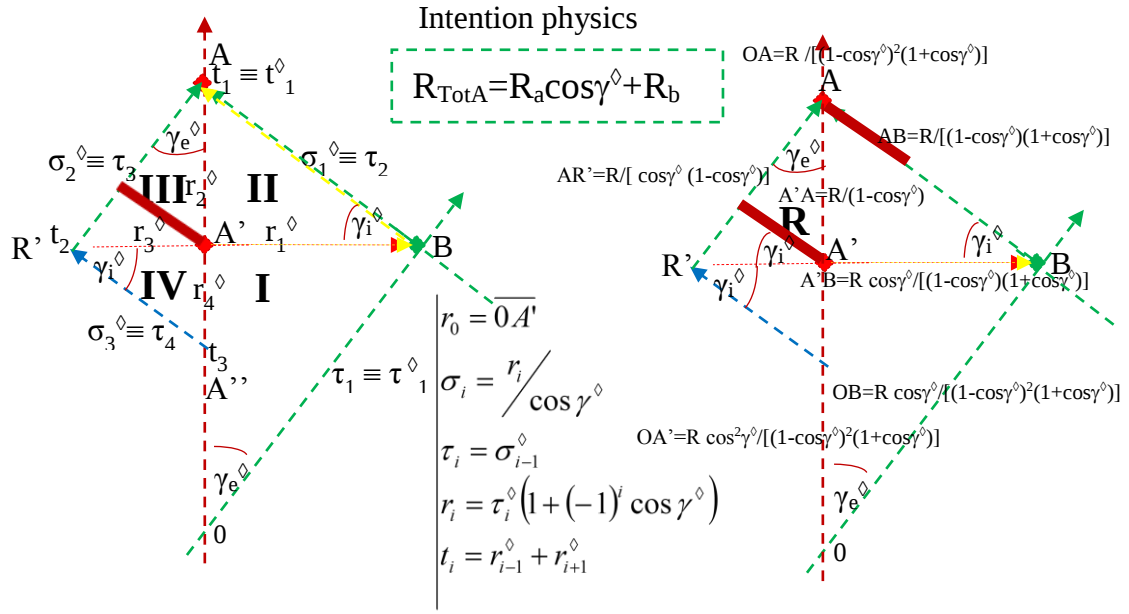
$$\sin^\diamond \gamma_e^\diamond = 1 - \cos^\diamond(\varphi +^\diamond \psi) = \sin^\diamond(\varphi) + \sin^\diamond(\psi)$$

$$\sin^\diamond \gamma_i^\diamond = 1 + \cos^\diamond(\varphi +^\diamond \psi) = \cos^\diamond(\varphi) + \cos^\diamond(\psi)$$

It's noteworthy that $(\pi/3 +^\diamond \pi/3) = (\pi/2)$

$$\begin{aligned} \frac{d(1 - \cos \gamma_e)}{d\gamma_e^\diamond} &= (1 - \cos \gamma_e) & \frac{d \cos \gamma_e}{d\gamma_e^\diamond} &= -(1 - \cos \gamma_e) \\ \frac{d(1 - \sin \gamma_e)}{d\gamma_{\bullet e}} &= (1 - \sin \gamma_e) & \frac{d \sin \gamma_e}{d\gamma_{\bullet e}} &= -(1 - \sin \gamma_e) \end{aligned} \quad [4]$$

The schema of intention is recursive since to every angle follows its opposite. More importantly, whichever configuration is completely determined by any side and the $\gamma^\diamond$ angle.



Now we have to find the rule which govern the above geometrical schema in the universal relation.

In the case of inertial evolution, it's easy to find that the only constraint is $\gamma^\diamond$ constant. Vice versa in the intention the angle $\gamma^\diamond$ varies, but we know from Newton law that $V = M/r = R_\bullet / r_2^\diamond$, where $R_\bullet$ is the Schwarzschild radius and r corresponds with $\frac{1}{2} r_2^\diamond$.

Since every aspect of the reality must spring from a geometrical schema, and in the reality there are two fundamental kind of relationships, the gravitational and the electrical one, that are always both present for a same couple of conjoined individuals, there must be a strict parallelism between them and a relation which unifies them. We must therefore:

- define an electrical radius $R^\diamond$ which plays, in the electrical relationship, the same role of $R_\bullet$ in the gravitational one
- search and find a relation between $R^\diamond$ and $R_\bullet$.

We will show this relation afterwards (**chapter: The Unification of gravitation and electricity**). For the moment, we can identify the potential V with $\sin \gamma^\diamond$, so that $V r_2^\diamond = R = r_3^\diamond \cos \gamma^\diamond$ must be a constant of the intention.

Both in the reflection then in the Intention the length of the path is the same, since the starting point and the ending point are the same.

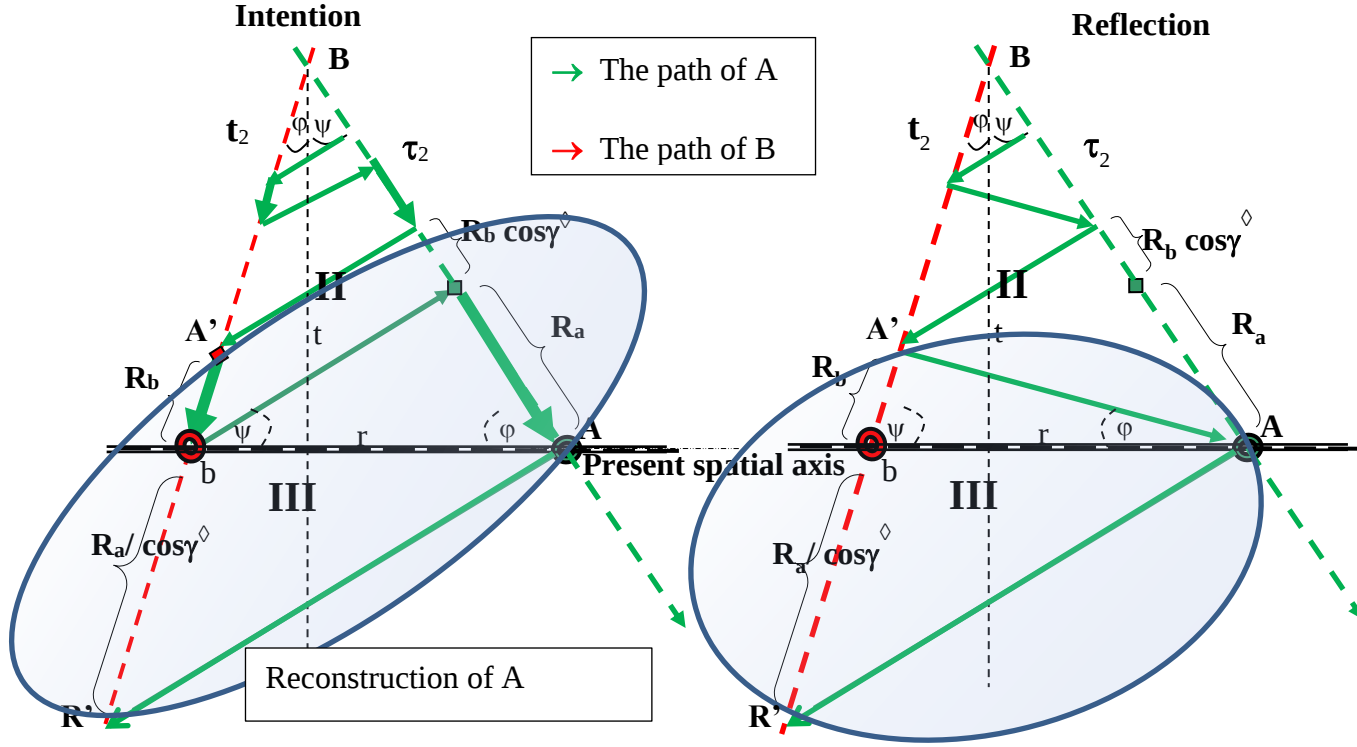


Fig. 1– the geometrical schema of the intention

Nevertheless, the difference between the intention and reflection is profound. In the Intention, the period is composed of spatial backward receiving, temporal spinning $\text{Re}^{i\pi} \rightarrow \text{Re}^{i(n+1)\pi}$ and spatial forward donating, while in the reflection is composed of spatial forward receiving and spatial forward donating.

Therefore, on the threads of every period (A', A, R'), we have:

$$\pm i k f_1(\partial t) - i f_2(\partial r) = \pm i j 0 \quad \text{In the reflection}$$

$$\pm i k f_1(\partial t) - i f_2(\partial r) = \pm i j R \quad \text{In the Intention relationship}$$

(it corresponds to the Dirac equations)

More important, the delay R_a and R_b at the present time, in the Intention are constant while in the reflection are variable with the distance (or time) and the angle γ .

$$\text{Since } v = \tanh \gamma = \frac{\frac{\overline{AA'}}{2} - \frac{\overline{A'A''}}{2}}{\frac{\overline{AA'}}{2} + \frac{\overline{A'A''}}{2}} = \frac{1 - \frac{\overline{A'A''}}{\overline{AA'}}}{1 + \frac{\overline{A'A''}}{\overline{AA'}}} = \frac{1 - K^{\diamond 2}}{1 + K^{\diamond 2}} \quad [5]$$

we must have

$$\cosh \gamma = \frac{K^{\diamond -1} + K^{\diamond}}{2} \quad \sinh \gamma = \frac{K^{\diamond -1} - K^{\diamond}}{2} \quad \text{where } K^{\diamond} = \cos^{\diamond} \gamma^{\diamond}$$

or $\frac{1}{K^\diamond} = \cosh \gamma + \sinh \gamma = e^\gamma$ and $K^\diamond = \cosh \gamma - \sinh \gamma = e^{-\gamma}$

In an inertial case, being $d\gamma=0$, all measures vary now with time t only

$$\frac{t_{srel}}{\tau_{srel}} = \frac{t^\diamond - d_{srel}}{\tau^\diamond} = \frac{1}{\cos \gamma^\diamond} - \sinh \gamma = \cosh \gamma \quad \text{and} \quad \frac{d_{srel}}{\delta_{srel}} = \frac{v t_{srel}}{v \tau_{srel}} = \frac{\sigma^\diamond + r^\diamond}{2\partial_{srel}} = \cosh \gamma$$

In the Intention case, distances and times are functions of (R, γ) where the constant R is the gravitational/electrical Radius of the individual in intention.

In a frame at rest, i.e. R and γ constant, since $dd_{srel} = 0$, we have at last

$$\frac{dt_{grel}}{d\tau_{grel}} = \frac{dt^\diamond - dd_{grel}}{d\tau^\diamond} = \frac{dt^\diamond}{d\tau^\diamond} = \frac{1}{\cos \gamma^\diamond}$$

Indeed the second term in the equation $t_{grel} = t^\diamond - d_{grel}$ is useful only in the synchronization of watch but, being constant, it disappears in the differential equation $dt_{grel} = dt^\diamond$ so that the rate $d\tau/dt$ becomes equal to $d\tau^\diamond/dt^\diamond$ and therefore changes from $\cosh \gamma$ to $1/\cos \gamma^\diamond$ and, equivalently, $\tanh \gamma$ to $\sin \gamma^\diamond$ ($\sqrt{1 - \cos^2 \gamma^\diamond}$) and $\sinh \gamma$ to $\tan \gamma^\diamond$.

The metric of reality, in other words the unique absolute metric, must depend only on geometry and therefore only on angles and distances. Both an inertial relationship and an intention relationship must be equally characterized by distances and the angles: the relative velocity v for the first and the potential V for the other. The Absolute Metric must, therefore, be founded on the Lorentz transformation where the angles are fixed and vary only the distances:

$$\begin{cases} x'_1 = x_1 \cos \gamma - x_4 \sin \gamma \\ x'_4 = x_1 \sin \gamma + x_4 \cos \gamma \end{cases}$$

In the inertial reflection, where space and time are independent variables,

Setting $x_1 = x$ $x_4 = i c t$ and $v = \tanh \gamma = \sqrt{1 - \frac{1}{\cosh^2 \gamma}}$ we have:

$$\begin{cases} \sigma = \frac{x - vt}{\sqrt{1 - v^2}} \\ \tau = \frac{t - vx}{\sqrt{1 - v^2}} \end{cases}$$

And the metric:

$$d\tau^2 - d\sigma^2 = dt^2 - dx^2$$

Still, since $x = v_{translation} t + r$ we can equally put

$$\left\{ \begin{array}{l} \sigma = \frac{r}{\sqrt{1-v^2}} \\ \tau = \sqrt{1-v^2} \ t - v_{translation} \sigma \end{array} \right.$$

While in the inertial case the $v\sigma$ term is variable and doesn't cancel in the differentials, in the Intention it is constant and therefore cancels differentiating.

In other words, differently from the inertial system, in the intention, the relation's time and distances are indeed constant, since the geometrical configuration of the relation depends only on R, which is constant, and on V, which is constant since dV must cancel in the immediate vicinity of the individuals.

Therefore, the relational time t or τ , being constant, does not depend on spatial distance but only on angles.

In the immediate vicinity of the individuals, since $dd = (v_{translation} d\sigma) = 0$, $d\tau/dt$ becomes equal to $d\tau^\diamond/dt^\diamond$ and therefore $d\sigma/dr = d\sigma^\diamond/dr^\diamond$.

$$\left\{ \begin{array}{l} d\sigma = \frac{dr}{\cos \gamma^\diamond} \\ d\tau = dt \cos \gamma^\diamond \end{array} \right. \quad [6]$$

In other words, in the intention relationship, the time measurements and the spatial measurements are independent of each other since, given the radius R, they depend only on the angle γ which is assumed, by definition, constant in the measurement.

Therefore, whichever distance, must be decomposed in a pure time distance and a pure spatial distance.

At this point it is important to notice that the distances are not commutative since

$$r_{2a}^\diamond \neq r_{2b}^\diamond .$$

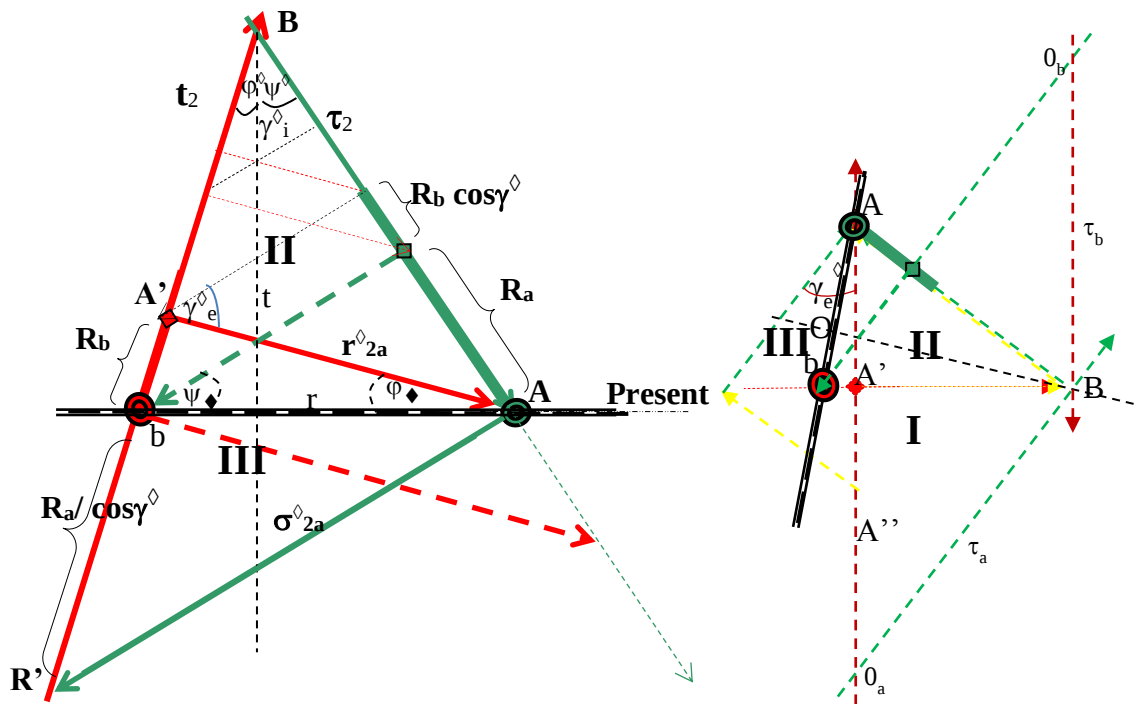


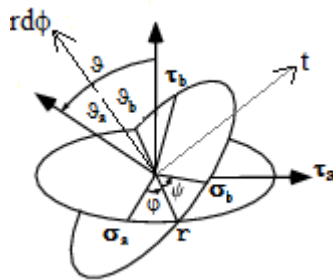
Fig. 2– the geometrical schema of the intention

Furthermore, the relation is characterized by the axis of the nodes N or r axis, of a spatial nature, which unites the nodes of the two individuals in relationship. The axis of the nodes r is the intersection of the r_{xt_x} planes of the two individuals.

Perpendicular to the r axis of nodes, there is the time axis t along the local direction of the temporal axis t in the universe.

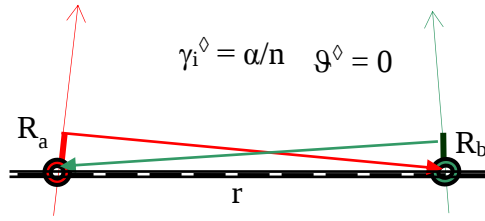
In the space of the relationship, therefore, we can identify an rt plane of the relation with respect to which the r_{xt_x} planes of the two individuals are rotated respectively by an angle φ e ψ where $\varphi^\diamond + \psi^\diamond = \gamma^\diamond$

Since the sole universe thread is sequential, without loops, the polar axes of different individuals never intersect each other. Therefore, the two reference frames must moreover twist around the axis of the nodes r forming the two angles of nutation ϑ_a and ϑ_b where $\vartheta_a + \vartheta_b = \vartheta$.



The torsion, doesn't affect the metric but the charge of individuals in the strong interaction and the configuration of the relation.

Outside the radius, when $r > R_{tot}$, we have $R \rightarrow R_{outside} = R_{tot}$ which is constant



and therefore

$$V = \sin^\diamond \gamma = \frac{R_{tot}}{r} \quad \text{and} \quad r = \frac{R_{tot}}{\sin^\diamond \gamma} \quad \text{and} \quad t = \frac{R_{tot}}{\sin^{\diamond^2} \gamma} \quad [7]$$

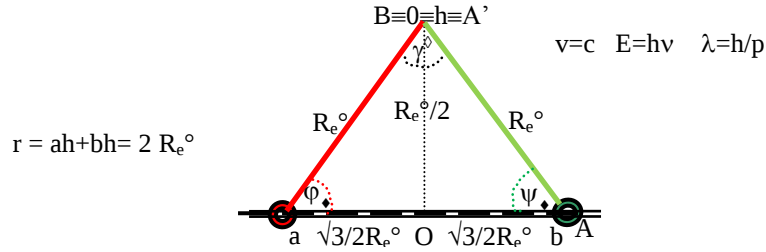
From afar, when $\gamma \ll \pi/2$, we can handle complex individuals R_{Tot} like elementary individuals in intention. As long as γ approaches $\pi/2$, however, the complex individuals vanish and we have to dismember them in their elementary components and consider the relations between these. Now, the elementary individuals are R_ϵ° for electricity and $R_\alpha R_\omega$ for gravitation.

Zero and infinite are not physical number in the Intention physics. Indeed, the universe R_ω is the maximum and to it corresponds a minimum R_α .

For the gravitational relations, the maximum individual is the Universe, so that R_{Max} is R_ω . Analogously, since there must be a parallel between gravitational and electrical relationship, we provisionally define a parallel R_ϵ° for the electrical relations, and since both must be two aspects correlated of a same reality, there must be, and we must search and find, the relation between R_ϵ° and R_ω . We will find this relation afterwards **(chapter: The Unification of gravitation and electricity)**. For the moment, we assume the existence of a maximum, that denote with R_ϵ° , for electrical relationship and that all strong and weak interactions take place inside R_ϵ° .

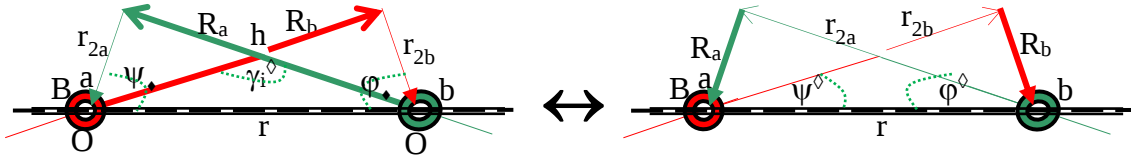
When $\gamma^\diamond = \pi/2$ or $\sin \gamma = 1$ or $r = R$, space and time axis overlaps, we have $r=t=R$

$$\begin{array}{l} \text{Space} \equiv \text{Time} \quad E \equiv M \quad R \equiv r \equiv t \quad \gamma^\diamond = \pi/2 \quad \psi_\diamond = \varphi_\diamond = \pi/3 \\ R_a \equiv r_{2a} \quad R_b \equiv r_{2b} \end{array}$$



When $\gamma^\diamond > \pi/2$ the Space and the time axis reverse.

$$\begin{array}{l} \text{Space} \leftrightarrow \text{Time} \quad E \leftrightarrow M \quad R \leftrightarrow t \quad \gamma_i^\diamond \leftrightarrow \pi - \gamma_e^\diamond \\ R_a \leftrightarrow r_{2a} \quad R_b \leftrightarrow r_{2b} \\ \psi^\diamond \leftrightarrow \varphi_\diamond - \pi/2 = 1/2 \alpha/n \quad \varphi^\diamond \leftrightarrow \psi_\diamond - \pi/2 = 1/2 \alpha/n \end{array}$$



Inside the radius, when $r < R_{ind}$, we have that $t = t_{max} = R_{ind}$ is constant and $R \rightarrow R_{inside} < R_{ind}$ is variable.

$$\text{Since } t_{inside} = t_{max} = R_{ind} = \frac{R_{inside}}{\sin^{\diamond^2} \gamma} \quad \text{We have } R_{inside} = R_{ind} \sin^{\diamond^2} \gamma \quad [8]$$

And therefore:

$$V = \sin^\diamond \gamma = \frac{R_{inside}}{r} = \frac{r}{R_{ind}} \quad r = \frac{R_{inside}}{\sin^\diamond \gamma} = R_{ind} \sin^\diamond \gamma \quad t = R_{ind} \quad [9]$$

In summary:

r		V	R	t	γ
$> R_{ind}$		R_{ind}/r	R_{ind}	r^2/R_{ind} or R_{ind}/V^2	$< \pi/2$
$= R_{ind}$		1	R_{ind}	R_{ind}	$= \pi/2$
$< R_{ind}$		r/R_{ind}	r^2/R_{ind} or $R_{ind}V^2$	R_{ind}	$> \pi/2$

It is noteworthy that, in the transition between outside and inside, the V is reversed and R and t exchange their roles.

We have therefore three schemes, one for individual A, where $R \equiv R_{\text{TotA}} = R_a \cos \gamma^\diamond + R_b$, one for individual B, where $R \equiv R_{\text{TotB}} = R_a + R_b \cos \gamma^\diamond$, one for an inertial observer in the barycentre, where $R \equiv R_{\text{Tot}} = R_a + R_b$.

The point of view of the inertial observer in the barycenter

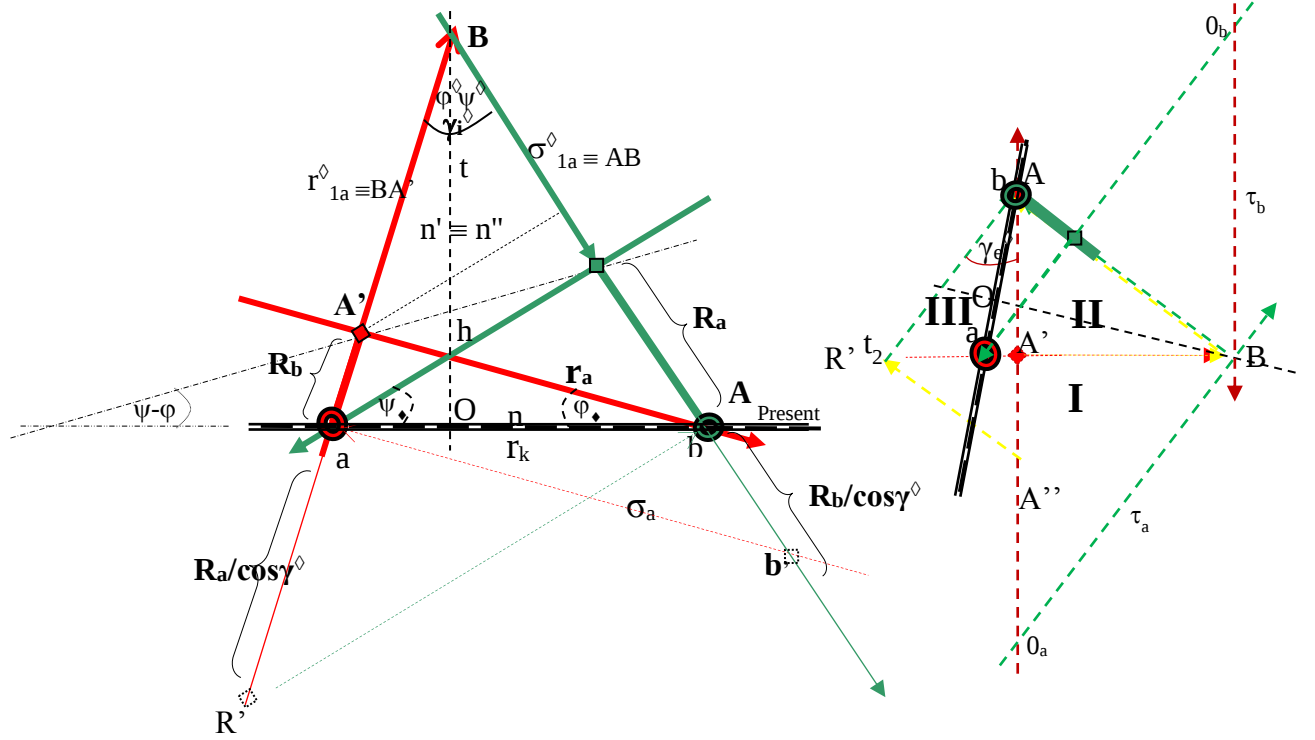


Fig. 3– the geometrical schema of the intention

$$2r = \underline{A'b} = r_{2a}^\diamond + R_b = r_{2b}^\diamond + R_a = \frac{R_a + R_b}{1 - \cos \gamma^\diamond} = \frac{R_{\text{Tot}}}{1 - \cos \gamma^\diamond} \quad \text{and} \quad r = \frac{R_{\text{Tot}}^*}{1 - \cos \gamma^\diamond}$$

$$t = \frac{r}{V} = \frac{R_{\text{Tot}}^*}{(1 - \cos \gamma^\diamond)^2}$$

$$\text{also} \quad r = \frac{\sigma_{1a}^\diamond + \sigma_{1b}^\diamond}{2} \quad t = \frac{t_{1a}^\diamond + t_{1b}^\diamond}{2} \quad [10]$$

$$V_e^\diamond = \frac{R_{a \text{ Tot}}}{r_{2a}^\diamond} = \frac{R_{b \text{ Tot}}}{r_{2b}^\diamond} = \frac{r}{t} = \frac{R_{\text{Tot}}}{2r} \quad [11]$$

$$V_{Tot}^{\diamond} = \frac{R_{Tot}^*}{\sigma_1^{\diamond}} = V_e^{\diamond} \frac{(1 + \cos \gamma^{\diamond})}{2} = V_e^{\diamond} \frac{(2 - (1 - \cos \gamma^{\diamond}))}{2} = V_e^{\diamond} \left(1 - \frac{V_e^{\diamond}}{2}\right)$$

And at last

$$A^{\diamond} = \frac{d^2 r}{dt^2} = \frac{dV}{dr} = \frac{dV}{dr_a} = \frac{dV}{dr_b} = \frac{dV}{d\gamma} \frac{d\gamma}{dr} = -c^2 \frac{(1 - \cos \gamma^{\diamond})^2}{(R_b^* + R_a^*)} = -c^2 \frac{R_b^* + R_a^*}{r^2} = \frac{1}{t}$$

$$A_{tot}^{\diamond} = \frac{d\left(V_{tot} = V - \frac{1}{2}V^2\right)}{d\gamma^{\diamond}} - c^2 \frac{(1 - \cos \gamma^{\diamond})^2}{R_b^* + R_a^*} \cos \gamma^{\diamond} = \frac{1}{\tau}$$

Since $\frac{R_b}{ah} = \frac{R_a}{bh}$ and $r = \frac{R_a + R_b}{\sin^{\diamond} \gamma}$

Denoting by $r_{cm a}$ the distance between the barycentre and the individual A

$$r_{cm a} = \overline{bh} = \frac{R_a}{\sin^{\diamond} \gamma} \quad r_{cm b} = \overline{ah} = \frac{R_b}{\sin^{\diamond} \gamma} \quad r_{cm a} + r_{cm b} = r$$

$$\frac{R_a}{r_{cm a}} = \frac{R_b}{r_{cm b}} = \frac{R_a + R_b}{r} = (1 - \cos \gamma) = V$$

$$A = \left(A_a = \frac{R_a}{r^2} \right) + \left(A_b = \frac{R_b}{r^2} \right)$$

$$F_f = F_{f_a} = F_{f_b} = \frac{1}{r^2}$$

$$U_f = \int F_f d(r_{cm a} + r_{cm b}) = \frac{1}{r}$$

$$\mu \cdot V = \frac{1}{r} = m_a \sin \cdot \varphi = m_b \sin \cdot \psi$$

Denoting by F_c and U_c the centrifugal force and potential

$$F_c = F_{c_a} = F_{c_b} = m_a \omega^2 r_{cm a} = m_a \omega^2 \frac{R_a^{\circ}}{R_a^{\circ} + R_b^{\circ}} r = \omega^2 \frac{1}{R_a^{\circ} + R_b^{\circ}} r = \omega^2 \mu r = \frac{\omega^2}{1 - \cos \gamma}$$

$$L_{tot} = L_a + L_b = \mu \omega r^2$$

$$U_c = \int F_c d(r_{cm a} + r_{cm b}) = \frac{1}{2} \omega^2 \frac{1}{R_a^{\circ} + R_b^{\circ}} r^2 = \frac{1}{2} \mu \omega^2 r^2 = \frac{1}{2} \mu \frac{L^2}{\mu^2 r^2} = \frac{1}{2} \mu L^2 V^2$$

Note that the linear metric is relegated exclusively to the path of light while, outside of it, we must appeal to the vectorial spacetime. Therefore:

$$\overline{hO} = \sin_{\bullet} \varphi \overline{bh} = \frac{R_b}{r} \frac{R_a}{R_a + R_b} r = \frac{R_a R_b}{R_a + R_b} = \mu \quad [12]$$

is an invariant of every intention.

$$\overline{Ob} = \overline{hb} \cos \varphi_{\bullet} = \overline{hb} \sqrt{1 - \left(\frac{R_b}{r}\right)^2} = \sqrt{\overline{hb}^2 - \mu^2} \quad \overline{Oa} = \overline{ha} \cos \psi_{\bullet} = \sqrt{\overline{ha}^2 - \mu^2}$$

$$r = \underline{ah} + \underline{bh} \text{ (on the path of light)} \neq \underline{aO} + \underline{bO}$$

In the relation, the space-time plane of the two conjugated individuals are rotated by an angle $\mathfrak{G}$ around the line of nodes r we have

$$\sin^{\diamond} \mathfrak{G} = \frac{\mu}{\tau + \mu} = \frac{\mu}{\frac{(R_a + R_b) \cos \gamma}{(1 - \cos \gamma)^2} + \mu} = \frac{\frac{\mu}{R_a + R_b} (1 - \cos \gamma)^2}{\cos \gamma + \frac{\mu}{R_a + R_b} (1 - \cos \gamma)^2} \quad [13]$$

$$\begin{bmatrix} \sigma \\ \tau \\ \sigma d\phi \end{bmatrix} = \begin{bmatrix} 1 & 0 & 0 \\ 0 & \cos \mathfrak{G}_a & \sin \mathfrak{G}_a \\ 0 & -\sin \mathfrak{G}_a & \cos \mathfrak{G}_a \end{bmatrix} \begin{bmatrix} \cos \varphi & \sin \varphi & 0 \\ -\sin \varphi & +\cos \varphi & 0 \\ 0 & 0 & 1 \end{bmatrix} \begin{bmatrix} x \\ t \\ xd\phi \end{bmatrix}$$

$$\begin{bmatrix} \sigma \\ \tau \\ \sigma d\phi \end{bmatrix} = \begin{bmatrix} \cos \varphi & -\sin \varphi & 0 \\ \cos \mathfrak{G}_a \sin \varphi & \cos \mathfrak{G}_a \cos \varphi & -\sin \mathfrak{G}_a \\ \sin \varphi \sin \mathfrak{G}_a & \cos \varphi \sin \mathfrak{G}_a & \cos \mathfrak{G}_a \end{bmatrix} \begin{bmatrix} x \\ t \\ xd\phi \end{bmatrix}$$

Since in the intention $Vr=\text{constant}$, the terms a_{12} and a_{21} and a_{31} cancel

$$\begin{bmatrix} \sigma \\ \tau \\ \sigma d\phi \end{bmatrix} = \begin{bmatrix} \cos \varphi & 0 & 0 \\ 0 & \cos \mathfrak{G}_a \cos \varphi & -\sin \mathfrak{G}_a \\ 0 & \cos \varphi \sin \mathfrak{G}_a & \cos \mathfrak{G}_a \end{bmatrix} \begin{bmatrix} x \\ t \\ xd\phi \end{bmatrix}$$

$$\sin_{\bullet}\varphi_{\bullet} = \frac{R_b}{r} = \frac{\mu}{R_a} \sin^{\diamond} \gamma \quad \sin_{\bullet}\psi_{\bullet} = \frac{R_a}{r} = \frac{\mu}{R_b} \sin^{\diamond} \gamma \quad [14]$$

$$1-V_e = V_i - 1 = \cos \gamma$$

$$\sin_{\bullet}\vartheta_{a\bullet} = \frac{\mu}{R_a} \sin^{\diamond} \vartheta \quad \sin_{\bullet}\vartheta_{b\bullet} = \frac{\mu}{R_b} \sin^{\diamond} \vartheta \quad [15]$$

$$\sin \phi = \frac{D_k}{r} \quad \tan \phi = \frac{rd\phi}{dr} \quad s = \sqrt{r^2 - D_k^2} = r \cos \phi$$

The torsion, which becomes appreciable when $\gamma \cong \pi/2$ in the strong interaction, doesn't affect the metric but the charge of individuals in the strong interaction and the configuration of the relation.

The metric is therefore

$$-id\tau \quad \vec{\tau} \equiv \vec{r} \left\{ \frac{dr}{(V_i - 1)} \right\} + \vec{t} \{ -idt(1 - V_e) \cos \vartheta + rd\Phi \sin \vartheta \} + \vec{L} \{ idt(1 - V_e) \sin \vartheta + rd\Phi \cos \vartheta \} \quad [16]$$

Where the $\vec{r}, \vec{t}$ and $\vec{L}$ are the versor of the local proper distance, proper time and orthogonal axis.

The norm is all the same

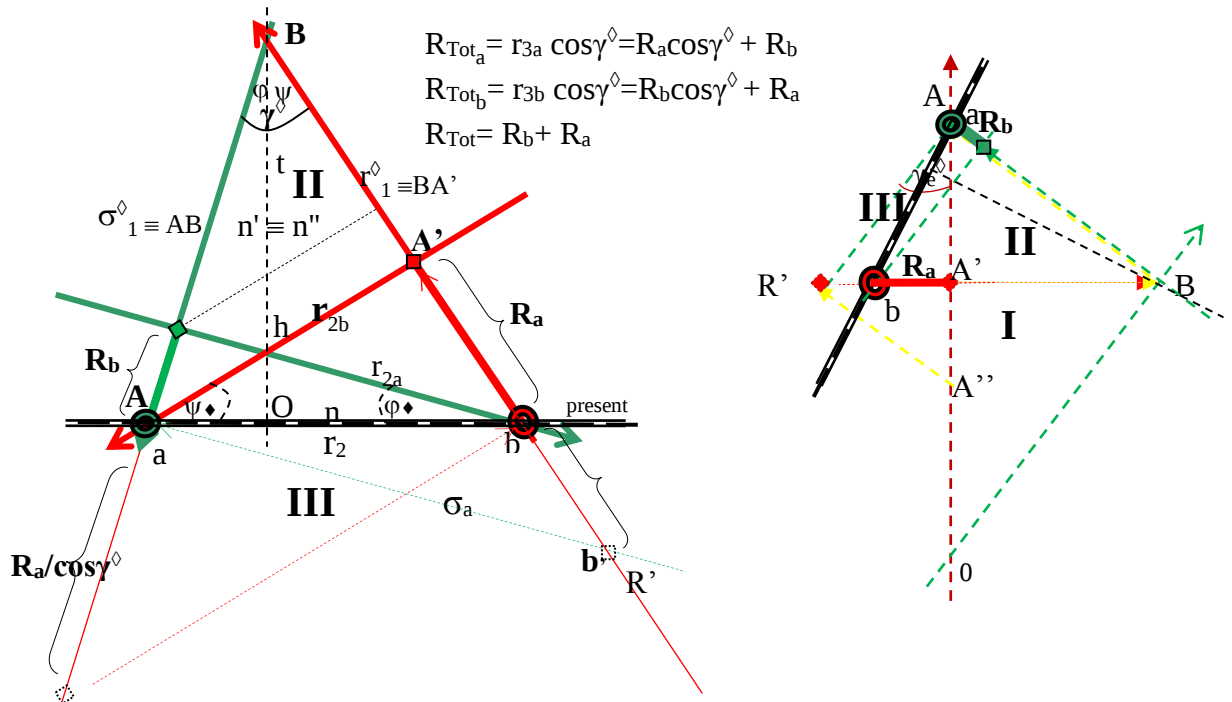
$$-d\tau^2 = -dt^2(1 - V_e)^2 + \frac{dr^2}{(V_i - 1)^2} + r^2 d\Phi^2 \quad [17]$$

Since distances don't depend on ϑ angle.

The $\sin^{\diamond} \vartheta$ potential corresponds to a kind of V_{yukawa} potential with the origin translated on the circle $r_c = R^{\circ}$

The $\sin^{\diamond} \vartheta$ potential, otherwise negligible, grows up asymptotically on $r=R^{\circ}$ and constitutes, in concomitance with the Pauli exclusion principle, the watershed between the inside and the outside for three homologues individuals in the baryons, constituting so the cause of confinement of quarks.

The Unification of gravitation and electricity



The Intention demands that the period of the two individuals in intention be the same.
 From the De Broglie relation $\lambda = h/p$
 Imposing $p_a = p_b$ and then $\lambda_a = \lambda_b$ we have:

$$\lambda_a = 2\pi R^{\circ}_b / \sin \psi = \lambda_b = 2\pi R^{\circ}_a / \sin \phi = 2\pi r \quad (\text{from intention schema}) \quad [18]$$

$$\lambda_a = 2\pi \alpha^{-1} / p_a = \lambda_b = 2\pi \alpha^{-1} / p_b = 2\pi r \quad (\text{from De Broglie relation})$$

And therefore:

$$p_a = m_a \sin \phi = R^{\circ}_b^{-1} \sin \phi \quad \text{or} \quad R_{\bullet a} = R^{\circ}_b^{-1}$$

$$p_b = m_b \sin \psi = R^{\circ}_a^{-1} \sin \psi \quad \text{or} \quad R_{\bullet b} = R^{\circ}_a^{-1}$$

Furthermore, from another point of view, if the relation must be universal, it must be possible to consider the role of the radius R as the gravitational radius $R_{\bullet}$ or as the electrical radius R° as well.

Therefore, from the schema of the universal relation, where $\sin \psi / \sin \phi = R_a / R_b$, we must have:

$$R_{\bullet b} / \sin \psi = R_{\bullet a} / \sin \phi \quad \text{in the gravitational case}$$

$$R^{\circ}_b / \sin \psi = R^{\circ}_a / \sin \phi \quad \text{in the electrical (strong/weak) case}$$

Since

$$V_e^{\diamond} = \frac{R_a}{r_{2a}^{\diamond}} = \frac{R_b}{r_{2b}^{\diamond}} = \frac{R_{Tot}}{r_2} = G/c^2 \frac{2(M_a + M_b)}{2r} + Q^2 c^2 / 4\pi \epsilon_0 \frac{n_a n_b 2 \left(\frac{1}{M_a} + \frac{1}{M_b} \right)}{2r}$$

therefore, must be:

$$R_a^\circ = \text{const}/R_{\bullet b} \text{ and } R_b^\circ = \text{const}/R_{\bullet a} \text{ (const} = 1)$$

Furthermore, since $R_b \sin_{\bullet} \varphi = R_a \sin_{\bullet} \psi$ then $R_b \cos_{\bullet} \varphi - R_a \cos_{\bullet} \psi = \text{const} = R_b - R_a$

Now we identify $R_{\bullet}$ with the gravitational radius and R° with the classical electrical radius and the two individuals in the intention with the universal schema.

The conservation of the cosines and sines in the Intention Relationship corresponds, respectively, to the to the principle of conservation of energy and momentum.

The relation between gravitation and electricity is that they are each the mirror of the other: $R_a^\circ = 1/R_{\bullet b}$. More precisely, the gravitational radius mirror itself in the other as $R^\circ = 1/R_{\bullet}$. In the same location where is placed the individual A, we have therefore the gravitational radius $R_{\bullet a}$, corresponding to the energy that the individual has and can donate, and the electrical radius $R_a^\circ = 1/R_{\bullet b}$, corresponding to the energy that the individual can receive.

Introducing the two constants:

$$\Theta = \frac{Qc^2}{(4\pi\epsilon_0 G)^{1/2}} = 1.671189 \times 10^{08} \text{ joule and } K = \Theta \cdot 2 \frac{G}{c^4} = 2.7610029 \times 10^{-36} \text{ meters}$$

$$\text{whence } K\Theta = 2 \frac{Q^2}{4\pi\epsilon_0} \quad \text{and} \quad \frac{K}{\Theta} = 2 \frac{G}{c^4} \quad [19]$$

$$\text{we get: } V = V^\circ + V_{\bullet} = \frac{1}{2} c^2 K \left[n_a n_b \frac{\Theta}{E_b} + n_a n_b \frac{\Theta}{E_a} + \frac{E_a}{\Theta} + \frac{E_b}{\Theta} \right] / r$$

$$\text{or } V = \frac{1}{2} c^2 \frac{n_a n_b R_b^\circ + n_a n_b R_a^\circ + R_{\bullet a} + R_{\bullet b}}{r} \quad [20],$$

(to simplify formulas we will use $R \rightarrow 1/2 R$ so that $V = R/r$)

As usual, n represents the relative sum of elementary electrical individuals, parts of a composite individual, where each elementary electrical individual is a mirror. For an electron, the R° corresponds to the double of the classical electron radius $2 \cdot 2.8179403227(19) \times 10^{-15} \text{ m}$; the $R_{\bullet}$, equal to $2 m_0 G/c^2$, corresponds to the gravitational Schwarzschild radius $1.3526081 \dots \times 10^{-57} \text{ m}$. Intention physics shows that each of these four terms takes place in turn in a distinct alternating moment, superimposing their effects, and that the electrical aspect R° of each individual is the mirror of the gravitational aspect $R_{\bullet}$ of its other in the intention.

Exactly, we affirm that the unification of gravitational and electromagnetic interactions, always joined and each mirror of the other, passes through the unification of mass and electric charge, being both reducible to a length.

In the intention absolute system of measures, which contemplates as only measure the distance, we impose $c=1$, $G=1/2$ and $K=\Theta=1 \text{ i.u.}$ (where i.u. is the **intention unit** measure). We can recognize that $K=2\alpha^{1/2} l_p$ and $\Theta=\alpha^{1/2} m_p c^2$ where l_p and m_p are the Planck-length and mass; moreover, from the well-known $\alpha=Q^2/(4\pi\epsilon_0 \hbar c)$, we get $\alpha=1/2 K\Theta/(\hbar c)$ and then $\hbar \rightarrow 1/2 \alpha^{-1} \text{ i.u.}^2$.

Of course the Compton wavelength is $h/mc = \frac{1}{2} 2\pi\alpha^{-1}R_e^\circ = 2.4263102367(11)\times 10^{-12}$ m.

At last, we have the universal relation:

$$\mathbf{R}\cdot\mathbf{R}^\circ = -\mathbf{K}^2 = -1 \text{ i.u.}^2 \quad (4\alpha \text{ in Planck Unit}) \quad [21]$$

Mechanics, with its one sided concepts of force, momentum, energy, barycentre and the equivalence principle of general relativity, at last precludes from recognizing the inverse equivalence of gravitation and electricity.

Indeed,

$$\begin{aligned} R_{\bullet a} A_a &= R_{\bullet b} A_b & \equiv & R^\circ_b A_a = R^\circ_a A_b \\ R_{\bullet a} v_a &= R_{\bullet b} v_b & \equiv & R^\circ_b v_a = R^\circ_a v_b \\ \frac{1}{2} R_{\bullet a} v_a^2 &= \frac{1}{2} R_{\bullet b} v_b^2 & \equiv & \frac{1}{2} R^\circ_b v_a^2 = \frac{1}{2} R^\circ_a v_b^2 \end{aligned}$$

$$\text{and in general } R_{\bullet x} f_x(R, \gamma^\diamond) = R_{\bullet y} f_y(R, \gamma^\diamond) \equiv R^\circ_y f_x(R, \gamma^\diamond) = R^\circ_x f_y(R, \gamma^\diamond)$$

The law of the equality of the inertial and gravitational mass is equivalent to the assertion that the acceleration imparted to a body by a gravitational field is independent of the nature of the body.

A ball of iron and a ball of lead fall with the same acceleration on the earth, but the acceleration is different to varying of the planet Earth or Jupiter. In overturned way, an electron and a muon fall with different accelerations on a same ion, but for everyone the acceleration is the same to varying of the ion, be it iron or lead. This overturned parallelism is the same between $R_\bullet$ and its mirror on other R° .

While in the gravitation the mass appears where it lays, in the electricity it appears as the reciprocal and reflected in the other so the barycentre of electricity and gravitation is the same.

We identify the unit charge with the individual and the sign with the matter-antimatter bipartition according to the direction of the individual's temporal axis on the local plane of the universe.

Thus, all matter element has a negative charge and, conversely, all antimatter element has a positive charge.

Intention is a relationship of individuals who donate / receive. All individuals rotate on their axis (spin). For all elementary individuals share the same radius and rotation speed (spin = 1/2): universality of radius and omega.

$$\frac{R_{part}}{r_{part}} = \frac{r_{part}}{t_{part}}$$

From $\frac{r_{part}}{t_{part}} = \frac{r_{part}}{t_{whole}}$ we have:

$$\frac{R_{\bullet part}}{r_{part}} = \frac{r_{part}}{t_{part}}$$

$\frac{r_{part}}{t_{part}} = \frac{r_{part}}{t_{\bullet whole}}$ in the gravitation, where $t_{\bullet whole} = R_\omega = 2\pi c/H_0$ and

$$\frac{R^\circ_{part}}{r_{part}} = \frac{r_{part}}{t_{part}}$$

$\frac{r_{part}}{t_{part}} = \frac{r_{part}}{t^\circ_{whole}}$ in the electric, where $t^\circ_{whole} = R_\epsilon^\circ$ is the electrical radius of the elementary individuals.

Indeed, on the border of the elementary individual R_ϵ° , when $\gamma \rightarrow \pi/2$, since $R_{\text{part}}^\circ \rightarrow R_\epsilon^\circ$,

we must have both: $R_\epsilon^\circ = \frac{r^2}{R_\epsilon^\circ}$ and $R_{\epsilon\bullet} = \frac{r^2}{R_\omega}$.

Therefore $\frac{R_\epsilon^\circ}{R_{\bullet\epsilon}} = \frac{R_\omega}{R_\epsilon^\circ}$ and since $R_\bullet = 1/R^\circ$ we must have $R_\epsilon^\circ = \sqrt[3]{R_\omega} \cong R_{\epsilon^\circ}/\pi$

Denoting with R_α the individual mirror of the universe: $R_\alpha = R_\omega^{-1}$ we have

$$R_\alpha : R_{\bullet\epsilon} = R_{\bullet\epsilon} : R_\epsilon^\circ = R_\epsilon^\circ : R_\omega \quad [22]$$

Therefore, R_ω is the finite Radius of the Universe and the maximum. The Amorone R_α , its mirror and therefore the minimum, is the quantum of gravitation and its mediator, it constitutes the totality of the matter of universe. All the gravitation and the mirroring is between and by means of amoroni. The composite (gravitationally) elementary (electrically) individual R_ϵ is the sole individual that is in equilibrium with universe. Indeed, it is the sole individual whose gravitational radius corresponds to the $R_\bullet$ which emerges from the space enclosed by its electrical radius and vice versa. It is the sole stable individual. To enlarge the electrical radius implies to enlarge the emergent

gravitational radius $R_\bullet = \frac{R_\epsilon^{\circ 2}}{R_\omega}$ but this is in contradiction with the smaller gravitational radius requested by $R_\bullet = 1/R^\circ$ and vice versa.

Furthermore, the same relation gives:

In the gravitational area,

$$R_{\bullet\text{inside}} = \frac{r^2}{R_\omega} \quad (\text{dark matter}) \quad \text{or} \quad r_{\text{max}} = \sqrt{R_{\text{inside}} R_\omega} \quad (\text{Milgrom space}) \quad [23]$$

In the electrical area, where $R_{\text{part}}^\circ \equiv 1/E_{\text{part}}$

$$E_{\text{part}} r_{\text{part}} = \frac{t_{\text{whole}}}{r_{\text{part}}} \geq 1 \quad \text{since } r_{\text{part}} \leq t_{\text{whole}} \quad [24]$$

Then $Et \geq 1$ ($\Delta E \Delta t \geq \hbar/2$) considering that the uncertainty on $\Delta E \cong E$ and on $\Delta t \cong t$.

In the spinning, the phase in the act of giving (real) alternates with the phase in the act of receiving (real) interspersed with the period of power (imaginary). The spin is $\frac{1}{2}$ because the period is like a Moebius strip where one side is gravitational and the other electric (reflection of the first): hence two gravitational give-receive phases and two electric give-receive phases per period.

The number of charge can be split up because an individual can interact partially within the intention. This occurs in the strong interaction where, due to the torsion, the involved individual interacts only in one case out of three, from which the $-1/3$ charge of the quark down.

About the way of acceleration, being $V = R_{tot}/r$

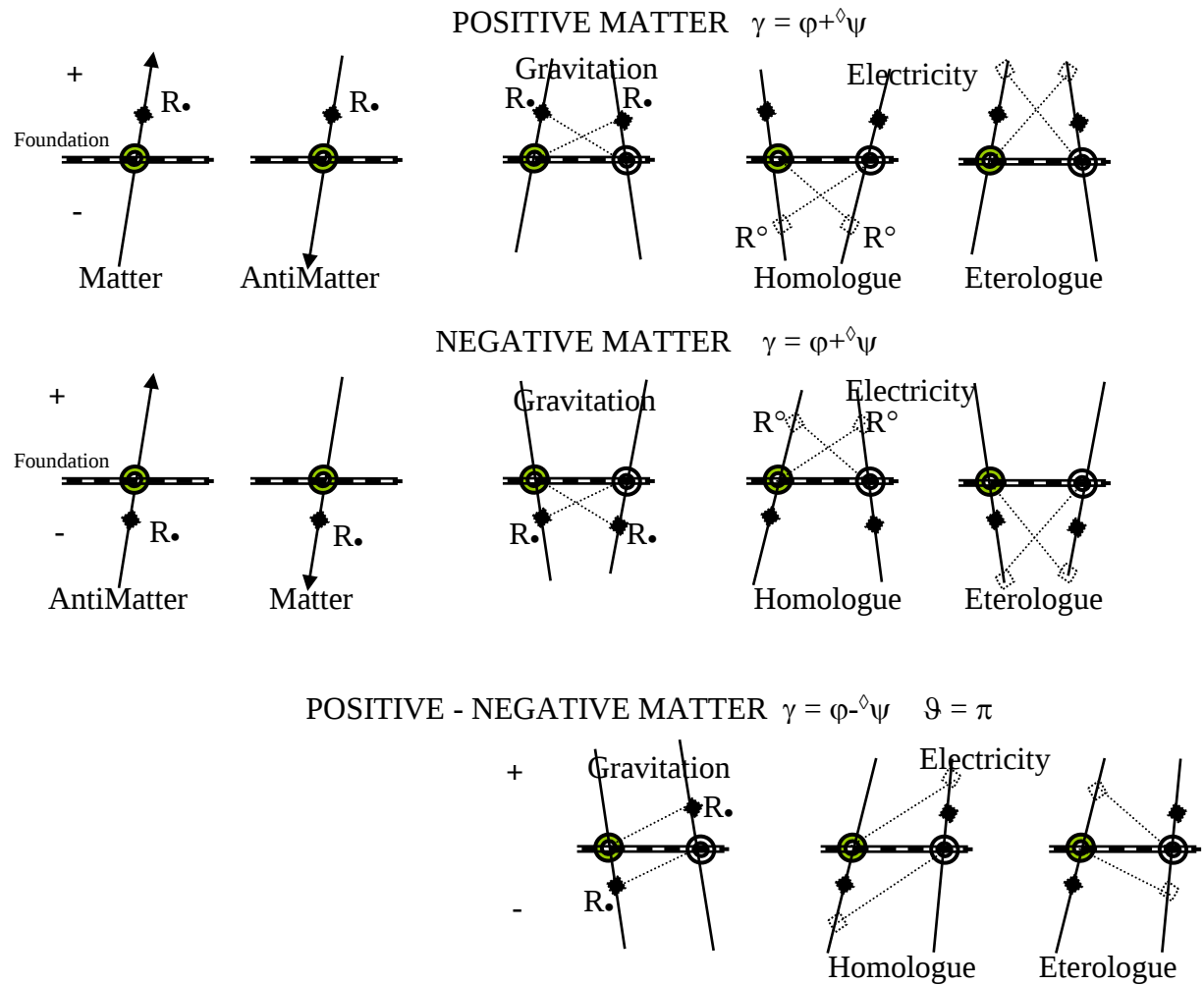


Fig. 4– the sign of the acceleration

Therefore, while the gravitational aspect, as mirror of the intention with Foundation from which arises, is an individual's absolute constant, the electrical aspect, as mirror of the gravitational aspect of another contingent individual, is a variable quantity. The $R_{\bullet}$ is advanced and therefore positive for matter.

The mirror R° , being reflected on other, appears on the opposite side if the two conjugated individuals in the intention are homologue, on the same side elsewhere. Therefore, from the matter point of view, the acceleration is always attractive (polar axes converge toward the future) for gravitation, while repulsive or attractive depending on the sign of the polar axes for electromagnetism. All is reversed from the negative matter point of view.

Attraction and repulsion are the same thing, depending on the verse in which time is seen flowing.

Inverting matter-antimatter does not change things for the gravitation and not even for the electromagnetism, because here only the homologous or heterologous characterization is valid and this remains unchanged after the inversion.

Similarly, nothing changes in reversing the sign of positive-negative matter.

For positive matter, the acceleration due to rotational motion is always centrifugal, vice versa for negative matter is centripetal.

So also for the negative matter there is an orbital motion, because the gravitational repulsion is balanced by the centripetal acceleration of the rotational motion. Similarly, the electric repulsion between heterologues is balanced by the centripetal acceleration of the rotational motion. In synthesis for matter, reversing the positive-negative sign of both individuals, nothing changes (only the reverse of time is reversed): if there is a stationary motion for positive matter, the same applies to negative matter. Obviously, for non-stationary motion, if there is removing for one there is approach for the other and vice versa.

We can unify the metric and U and F with:

$$c^2 d\tau^2 = (1-V)^2 c^2 dt^2 - \frac{dr^2}{(1-V)^2} - r^2 d\varphi^2 \quad [25]$$

$$U = \frac{1}{2} mc^2 \left[\frac{E_0^2}{m^2 c^4} - 1 - \left(\frac{dr}{d\tau} \right)^2 \right] = \frac{1}{2} mc^2 \left[-2V + V^2 + \frac{1}{c^2} L^2 V^2 (1-V)^2 \right] \quad [26]$$

$$F = -\frac{dU}{dr} = \frac{1}{r} mc^2 V (1-V) \left[1 - \frac{L^2}{c^2} V \{1-2V\} \right] \quad [27]$$

$$\begin{aligned} -id\tau \vec{\tau} &\equiv \vec{r} \left\{ \frac{dr}{(V_i-1)} \right\} + \vec{t} \{ -idt(1-V_e) \cos \vartheta + rd\Phi \sin \vartheta \} + \vec{L} \{ idt(1-V_e) \sin \vartheta + rd\Phi \cos \vartheta \} \\ -id\tau \vec{\tau} &\equiv \vec{r} \frac{dr}{(V_i-1)} + rd\Phi \vec{L} \{ \cos \vartheta + \vec{r} \sin \vartheta \} - idt(1-V_e) \vec{t} \{ \cos \vartheta + \vec{r} \sin \vartheta \} \end{aligned}$$

Denoting with $\vec{T}_r \equiv \cos \vartheta + \vec{r} \sin \vartheta$ [28]

$$-i m \vec{\tau} \equiv m \left(\vec{r} \frac{1}{(V_i-1)} \frac{dr}{d\tau} + r \frac{d\Phi}{d\tau} \vec{L} \vec{T}_r \right) - mi \frac{dt}{d\tau} (1-V_e) \vec{t} \vec{T}_r$$

Denoting with:

$$E \equiv m_0 c^2 \cosh \gamma = m_0 \frac{dt}{d\tau} (1-V) = \frac{E_0}{1-V} \quad [29]$$

$$P \equiv m_0 c \sinh \gamma \quad \text{and} \quad \cos \phi P = \frac{m_0 c^2}{1-V} \frac{dr}{d\tau}, \quad \sin \phi P = m_0 c^2 r \frac{d\Phi}{d\tau} \quad [30]$$

We get:

$$-i m \vec{\tau}^\diamond \equiv \left(\vec{L} \vec{T}_r \cos \phi + \vec{r} \sin \phi \right) p - \vec{t} \vec{T}_r i E \quad [31]$$

At last, denoting with

$$\vec{i} \equiv \left(\vec{L} \vec{T}_r \cos \phi + \vec{r} \sin \phi \right) \quad \text{and} \quad \vec{k} \equiv \vec{t} \vec{T}_r \quad [32]$$

We get:

$$-i m \vec{\tau} \equiv \vec{i} p - i \vec{k} E \quad [33]$$

Now, since the versor i and k are orthogonal to each other, we can define the versor j orthogonal to i and k and transform the above identity in the equivalent

$$\pm i \vec{k} E \pm \vec{i} p + \vec{j} m = 0 \quad [34]$$

Equivalent to the Dirac equations.

We must be careful about the potential. Indeed, we have:

		r	V	$U_\bullet = \mu_\bullet V$	$\Delta E = \Delta U_\bullet$
Outside $r \geq R_{\text{ind}}$	Gravit.	$(m_a + m_b)/V$	$(m_a + m_b)/r$	$m_a m_b / r$	$(m_a m_b) \Delta(1/r)$
	Electr.	$(R_a^\circ + R_b^\circ)/V$	$1/(\mu_\bullet r)$	$1/r$	$\Delta(1/r)$
		r	V	$U^\circ = \mu_\bullet^{-1} V$	$\Delta E = 1/\Delta U^\circ$
Inside $r \leq R_{\text{ind}}$	Gravit.	$(m_a + m_b)V$	$r/(m_a + m_b)$	$r/(m_a m_b)$	$(m_a m_b)/\Delta(r)$
	Electr.	$(R_a^\circ + R_b^\circ)V$	$\mu_\bullet r$	r	$1/\Delta(r)$

About the U and the kinetic LV terms only, these are bonded to the area (r inside or outside R_{ind}) that is the seat of the relation and their formula does not change when the distance r crosses the threshold R_{ind} .

Inside the universe, being $m_a m_b = 1$, we have $\Delta E = 1/\Delta U^\circ = 1/\Delta(r)$ as inside the electric relation (i.e. weak interaction).

The above versors can be equivalently replaced by Quaternions or Multivariate Vectors. In 18) Rowlands uses a combination of multivariate vectors and quaternions to achieve a more physically expressive formulation of the Dirac equations compared to Clifford algebra.

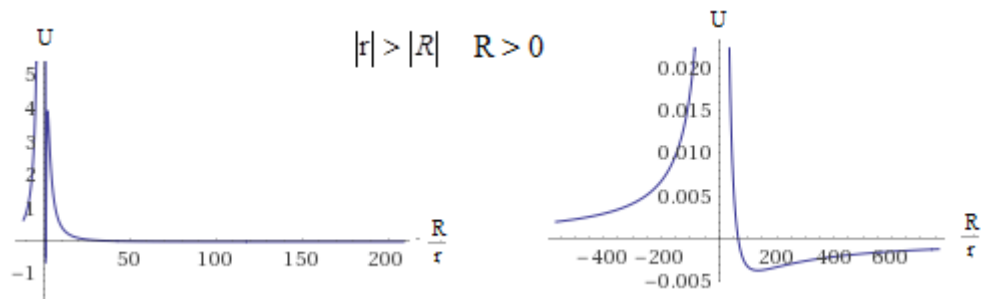
Vector

Quaternion

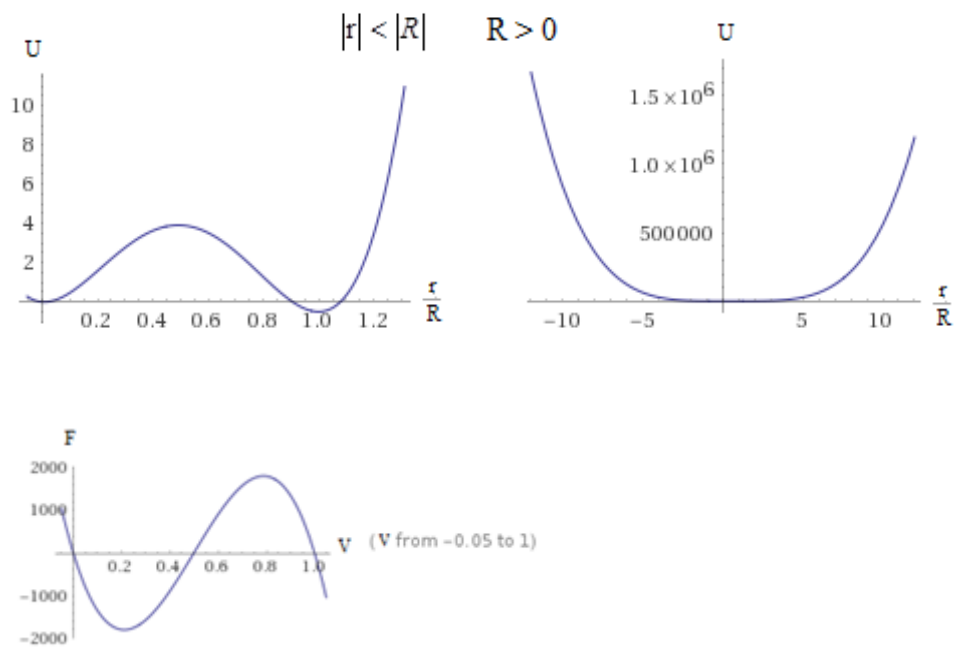
Multivariate Vector

$$\left\{ \begin{array}{l} \vec{r}^2 = \vec{t}^2 = \vec{L}^2 = \vec{r}\vec{t}\vec{L} = 1 \\ \vec{r}\vec{t} = -\vec{t}\vec{r} = \vec{L} \\ \vec{t}\vec{L} = -\vec{L}\vec{t} = \vec{r} \\ \vec{L}\vec{r} = -\vec{r}\vec{L} = \vec{t} \end{array} \right. \quad \left\{ \begin{array}{l} r^2 = t^2 = L^2 = r\vec{t}\vec{L} = -1 \\ rt = -tr = L \\ tL = -Lt = r \\ Lr = -rL = t \end{array} \right. \quad \left\{ \begin{array}{l} r^2 = t^2 = L^2 = 1; r\vec{t}\vec{L} = i \\ rt = -tr = i\vec{L} \\ t\vec{L} = -\vec{L}t = i\vec{r} \\ \vec{L}r = -r\vec{L} = it \end{array} \right.$$

Outside the R_{ind} radius, the R is constant with $R = R_{\text{ind}}$



Inside the R_{ind} radius, viceversa, the R is variable with $R < R_{\text{ind}}$ and we have $R = r^2/R_{\text{ind}}$ where $r < R_{\text{ind}}$ and therefore



Since $R_\bullet$ mirrors on other as $R^\circ=1/R_\bullet$, we have two parallel interactions: the gravitational and the electrical one that obey to the same geometrical schema. Nevertheless, they are profoundly different since one involves the first individuals (R_α), i.e not reflective, and therefore is, in se, a not reflective relation. We can know it only as emerging reflectively between complex reflective individuals. The other, instead, involves reflective individuals (R_ϵ) and is therefore reflective.

SECTION II APPLICATIONS

The following discussion represents a sketch of the first immediate results of the theory and are intended to demonstrate its power and validity, without any presumption of perfection and completeness.

It follows that the Dirac equation, and the Laplacian more in general, is only a non-relativistic limit approximation of the general [34], valid when $\cos\gamma\cong 1$ and $\sin\vartheta\cong 0$ (coulomb and weak). Indeed, even neglecting the torsion ϑ ($\sin\vartheta\cong 0$), the [34] give:

$$\begin{pmatrix} \frac{E_0}{1-V} & -c\sigma \cdot p \\ -c\sigma \cdot p & \frac{E_0}{1-V} \end{pmatrix} \cdot \begin{pmatrix} \psi_1 \\ \psi_2 \end{pmatrix} - \begin{pmatrix} mc^2 & 0 \\ 0 & -mc^2 \end{pmatrix} \cdot \begin{pmatrix} \psi_1 \\ \psi_2 \end{pmatrix} = 0$$

Where V is positive in attraction, negative in repulsion.

Now, when $1-V \cong 1$, as in the electroweak or gravitational interaction, and in the non-relativistic limit, we have $1/(1-V) \cong 1+V$ and

$$T = \frac{E_0}{1-V} \cong E_0(1+V) = E_0 + \frac{E_0}{mc^2}U \cong E_0 + U \quad (\text{Laplacian})$$

In the strong interaction area, these approximations are no longer valid.

ELECTRICITY

The intention schema, by keeping constant one variable at a time, covers all the relations:

- By keeping constant the angle γ , it describes the relation of approaching or moving away between two individuals in an inertial space
- By keeping constant the radius $R_\bullet$ or R° , it describes the gravitational or electrical relation between two individuals outside the radius.
- By keeping constant the time $t = R_\epsilon$ or R_ω , it describes the relation between individuals inside the radius in the Weak and Strong interaction or in the Universe.

Indeed, depending on the angle $\gamma_q^\diamond \pm \alpha/n$ we have all the type of interaction: $\gamma_q^\diamond = 0$ in the external area (Newton/Coulomb), $\gamma_q^\diamond = \pi/2$ in the border area (strong force), $\gamma_q^\diamond = \pi$ in the internal area (weak force).

Since, in the stationary orbit it holds $1 = \frac{L^2}{c^2} V(1 - 2V)$

We have

$$E_0^2 = m^2 c^4 (1 - V) \left[1 + V^3 \frac{L^2}{c^2} \right] + m^2 c^4 \left(\frac{dr}{d\tau} \right)^2 \quad [35]$$

In the electrical/gravitational area, when $V = R/r = (\alpha/n)^2$ then $E_0 \cong mc^2 (1 - V)$

In the strong area, when $V = 1 - \alpha/n$ then we have the quarks $E_0 \cong n\alpha^{-1} mc^2$

In the weak area, when $V = (\alpha/n)^2$, then $E_0 \cong m_\nu c^2 (1 - V)$ and $m_\nu = \frac{r^2}{R^2} \frac{R^2}{R_\omega} = \alpha^4 \pi m_e$

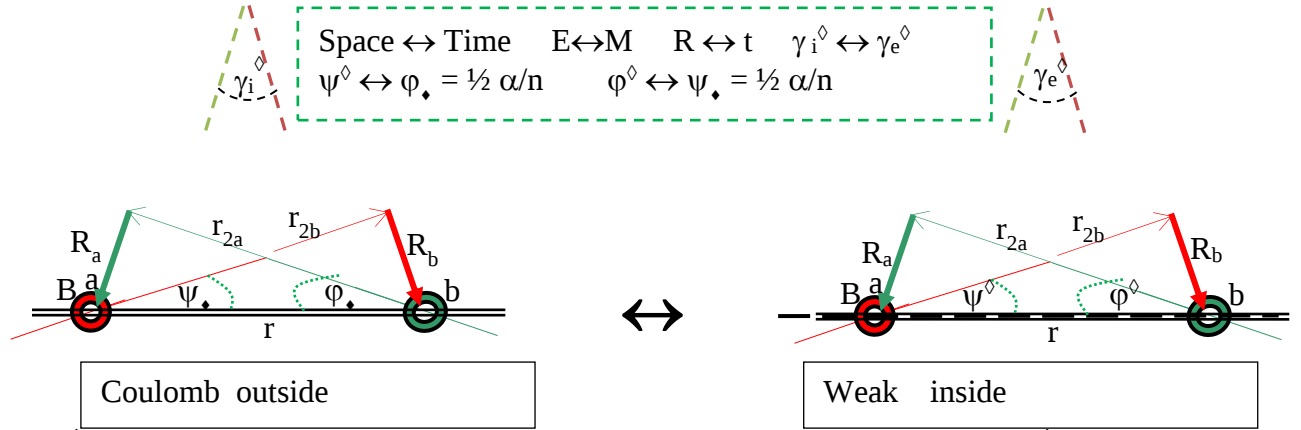
The Energy have an instable maximum when $V = r/R = 1/2$.

The charge is the relative sum of individuals, where the sign is conventionally negative for matter and positive for antimatter. Is an exception the strong interaction where each individual engaged counts for -1/3, since it is free to interact only one time out of three. Therefore, the quark Up are supposed to be constituted by a couple of individuals matter-antimatter where only one of them is engaged in the strong interaction, with charge -1/3, while the other is linked to this via weak interaction, far away and therefore with charge +1, and therefore do not interferes with the strong interaction. From these assumptions, it follows that neutrinos are constituted by a couple matter-antimatter linked via weak interaction, and therefore having a mass of $\sin^2 \gamma \pi m_e = \alpha^4 \pi m_e$. Furthermore, it follows that all individuals engaged in strong interaction interact with a charge of -1/3 and that quarks exists as such only in the strong interaction, where intervene always with radius R_ϵ and charge -1/3.

We can associate the three families of fermions with the three possible axes of the mass, that correspond also to the three kind of interaction (coulomb, strong, weak). Similarly, the different flavors, which represent increasing levels of energy, do not influence the radius of individuals for interactions inside the elementary radius R_ϵ , i.e in the strong and weak interaction.

Area	form	Number of elements R_ϵ	Mass/ m_e (mnemonic rule)			Charge
			j (e)	i (μ)	k (τ)	
Coulomb	l	1	1	$2\pi\alpha^{-1}/4$	$(\alpha^{-1})^2/4$	-1
Weak	ν	2 eterologues	α^4	...	...	-1 + 1
Strong	q (down)	1	2 (3/2 π)	α^{-1}/π (3/2 π)	$(\alpha^{-1}/\pi)^2$ (3/2 π)	-1/3
	q (up)	2 eterologues	(3/2 π)	4 α^{-1} (3/2 π)	4 $(\alpha^{-1})^2$ (3/2 π)	-1/3 + 1

Coulomb and Weak area



When $\gamma^\diamond \rightarrow \pm \alpha/n$, we have the electromagnetic relation, which take place outside $\gamma^\diamond \rightarrow \gamma_i^\diamond$, and its reverse, the weak interaction, inside, $\gamma^\diamond \rightarrow \gamma_e^\diamond$ when $\gamma^\diamond \rightarrow \pi \pm \alpha/n$.

$$\cos \gamma = \cos(\alpha/n) = 1 - \frac{1}{2} \alpha^2/n^2.$$

$$E = \Delta C_\bullet = \mu_\bullet \Delta(\cos \gamma_q^\diamond) = \Delta(1/r) \rightarrow \frac{1}{2} c^2 \mathbf{Re} \cdot \alpha^2 \Delta(1/n^2) \text{ *Balmer's radiation*}$$

$$E = 1/\Delta C^\circ = 1/(\mu_\bullet^{-1} \Delta(\cos \gamma_q^\diamond)) = 1/\Delta(r) \rightarrow \mathbf{Re} \cdot \alpha^2 1/\Delta(1/n^2) \text{ *boson*}$$

Electrical $\gamma^\diamond=0$	Weak ^o $\gamma^\diamond=\pi$
$\Delta E_{n1}^{n2} = \Delta \frac{1}{r} = \frac{1}{2} \left(\frac{1}{n_1^2 \alpha^{-2} R_{Tot}^\circ} - \frac{1}{n_2^2 \alpha^{-2} R_{Tot}^\circ} \right)$	$\Delta M_{n1}^{n2} = \frac{1}{\Delta r} = \left[\frac{1}{n_1^2 \alpha^{-2} R_{Tot}^\circ} - \frac{1}{n_2^2 \alpha^{-2} R_{Tot}^\circ} \right]^{-1} (2\pi)^k$

In the electromagnetic Interaction, $\Delta C = \frac{1}{2} [1/(n_1^2 \alpha^{-2}) - 1/(n_2^2 \alpha^{-2})] (R_a^\circ + R_b^\circ)^{-1}$ is the origin of the electromagnetic waves. Replacing in the above formulas R_a° with the electrical radius of the electron and R_b° with the electrical radius of the nucleus, and considering that $R_a^\circ \gg R_b^\circ$, we have the Balmer's formula: $\Delta E = \frac{1}{2} [1/(n_1^2 \alpha^{-2}) - 1/(n_2^2 \alpha^{-2})] R \cdot e$.

In the weak interaction, which is the reversal of electromagnetic interaction, we have

$$\Delta M_{n1}^{n2} = \left[\frac{1}{n_1^2 \alpha^{-2} R_{Tot}^\circ} - \frac{1}{n_2^2 \alpha^{-2} R_{Tot}^\circ} \right]^{-1}$$

In particular, in the beta decay, if R_a° and R_b° are the eterologue individuals of a quark Down and anti-Up, jumping from $n=2$ to $n=1$, we have $\Delta M = (1-1/4)^{-1} \alpha^{-2} 2\pi m_{0e} = 80.39126 \text{ GeV}$ which is equal to the mass of $W^\pm$.

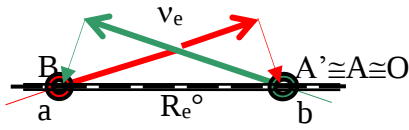
Analogously, if R_a° and R_b° are the eterologue individuals of a quark Up and anti-Up on $n=2$ and $n=3$, and both these individuals jump on $n=1$, then we have

$$\Delta M = W^\pm + (1-1/9)^{-1} \alpha^{-2} m_{0e} = 91.18676 \text{ GeV} \text{ which is equal to the mass of } Z_0.$$

More generally, a change from $n=i$ to $n=j$ is never direct since it requires less energy to change from $n=i$ to $n=1$ and then from $n=1$ to $n=j$.

Neutrinos emerge from the weak relationship between two individuals matter-antimatter

$$\varphi^\diamond = \psi^\diamond = \pi/2 - \alpha/n \quad \vartheta = 0$$



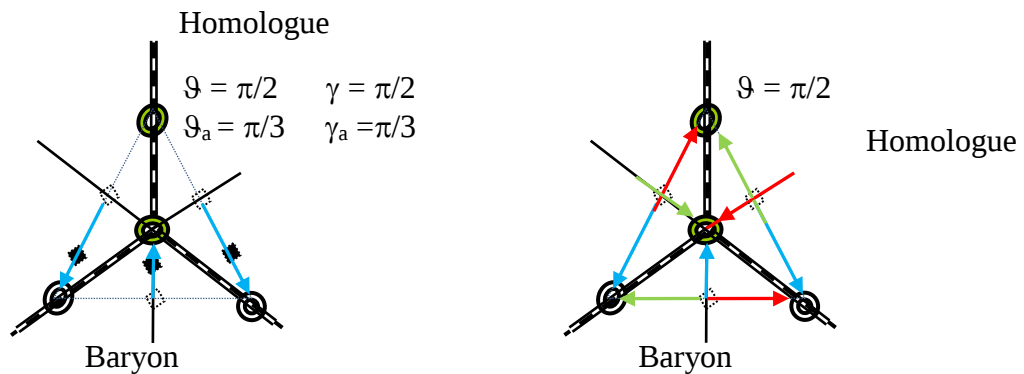
$$m_v = \frac{r^2}{R^2} \frac{R^2}{R_\omega} = \alpha^4 m_e$$

STRONG area

When $\gamma^\diamond \rightarrow \pi/2 \pm \alpha/n$ we have the strong relation with $\vartheta = \pi/2$ and energy and momentum are inverted.

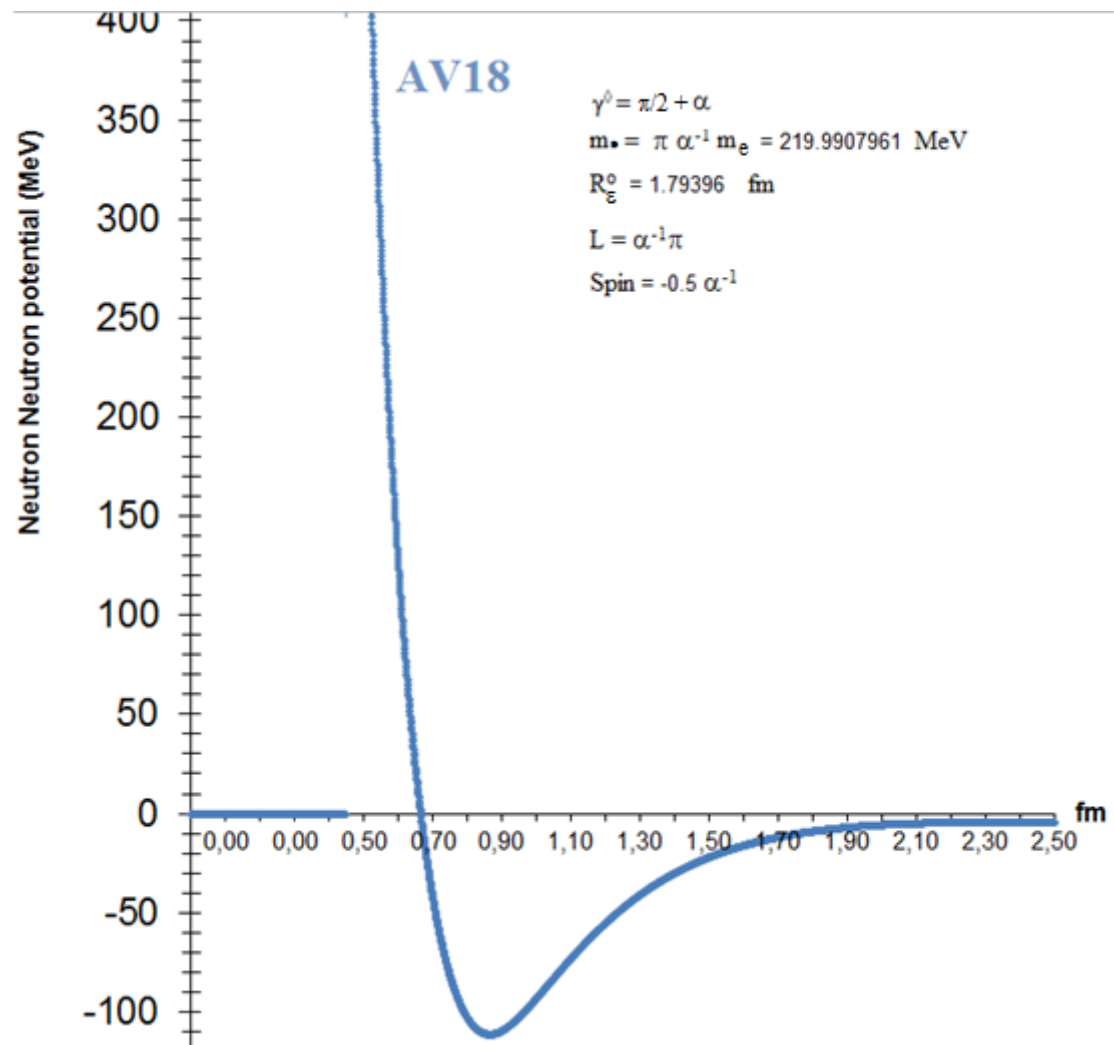
Mesons are constituted by a couple quark-antiquark which links two individuals of equal and opposite charge $1/3$. The presence of both matter and antimatter in the quarks UP doesn't change the structure of interaction, since only one of them ($\pm 1/3$) is engaged in the strong interaction while the conjoined ($-+1$) is linked to this via weak interaction, therefore far outside the range of strong interaction. Mesons can decay or via electromagnetic interaction in presence of a couple of quarks of the same type, or via weak interaction otherwise.

Therefore, all the composed matter, from the electrical to the strong interaction and weak interaction, having to be linked by an attractive force, always involves a matter-antimatter pair. An exception is the interaction between three quarks, which links three individual homologues ($-1/3$), which forms the baryons.



The torsion ϑ is relevant only in the close proximity of $\gamma=\pi/2$, growing up asymptotically on $\gamma=\pi/2$. In the baryon, in concomitance with the Pauli exclusion principle, it constitutes the cause of its stability. The three quarks constituent, having the same charge $-1/3$, repel each other but, since each one occupies one of the three possible states, for the Pauli exclusion principle they cannot escape since whatever change implies to invade the place of the other.

From the [26] we can get a Neutron Neutron potential in street agreement with AV18



GRAVITATION

Indeed, the mirroring function $\Re(R)=1/R$, where $R^\circ=1/R_\bullet$, is the condition necessary and sufficient for the equilibrium of a mirroring universe, i.e. a universe where every individual makes itself mirror of whichever other, be it simple or composed in every way, and all the universe mirrors itself in every individual and every individual mirror itself in the entire universe. The Universe R_ω has a mirror, we name it the Amorone R_α . Since the universe is the maximum, the amorone is the minimum. Indeed, the amorone, being the conjugated of the Universe, verify $R_\alpha R_\omega = -1$, and mirrors all the Universe which reflects in it. The amorone is the unit of measure of universe.

The frequency of consummations between Universe and Amorone is R_ω . Indeed it happens R_ω/R_α times during the apparent age of the Universe R_ω .

The interaction between the Universe and the Amorone is the union of gravitation and electricity since the Universe coincides with the mirror of the Amorone in it and equally the Amorone coincides with the mirror of the Universe in it.

The gravitation is between and by means of amoroni since the amorone is the subject and the boson mediator of gravitation. Denoting with $\aleph$ the number of amorone in a composite individual, and with $\aleph_a \aleph_b$ ($n_a n_b$) the relative number of relations between the two composite individuals a and b, we derive the gravitational and electrical radius as:

$$\begin{aligned}\overline{R_{\bullet a}} &= \aleph_a \aleph_b \frac{R_\alpha}{\aleph_b} = \aleph_a R_\alpha = R_{\bullet a} \\ \overline{R_{\bullet b}} &= \aleph_b \aleph_a \frac{R_\alpha}{\aleph_a} = \aleph_b R_\alpha = R_{\bullet b} \\ \overline{R_a^\circ} &= n_a n_b \frac{R_\omega}{\aleph_b} = n_a n_b R_{\bullet b}^{-1} \\ \overline{R_b^\circ} &= n_b n_a \frac{R_\omega}{\aleph_a} = n_b n_a R_{\bullet a}^{-1}\end{aligned}\tag{36}$$

While the Dialogue is the relation between two individuals, the Communion is the relation “part of” between each part and the emergent composite individual.

The amorone $R_\alpha = R_\omega^{-1}$ is the unique elementary individual and the communion of amoroni gives rise to only two emergent compound individuals: the Electron and the Universe.

Indeed, amoroni attract each other immensely because each one sees in the other the entire universe, until the resulting agglomerate, which is the electron, is such that its reflection in every single amorone member, added for the number of all the members, equals the energy of the universe R_ω .

$$R_\omega : R_\epsilon^\circ = R_\epsilon^\circ : R_{\bullet \epsilon} = R_{\bullet \epsilon} : R_\alpha$$

Every relation finds its place inside an individual more complex of which it is a part of.

Therefore, apart from leptons and universe, the proportion $R_{\diamond\omega} : R_{\text{whole}} = R_{\text{whole}} : R_{\text{part}}$, starting from $R_{\text{part}} = R_{\varepsilon}^{\circ}$, applies recursively through $R_{\text{whole}} \rightarrow R_{\text{part}}$, providing all the mirroring universe scale giving rise to stars $R_{\bullet s}$ and galaxies $R_{\bullet g}$ and clusters and so on.

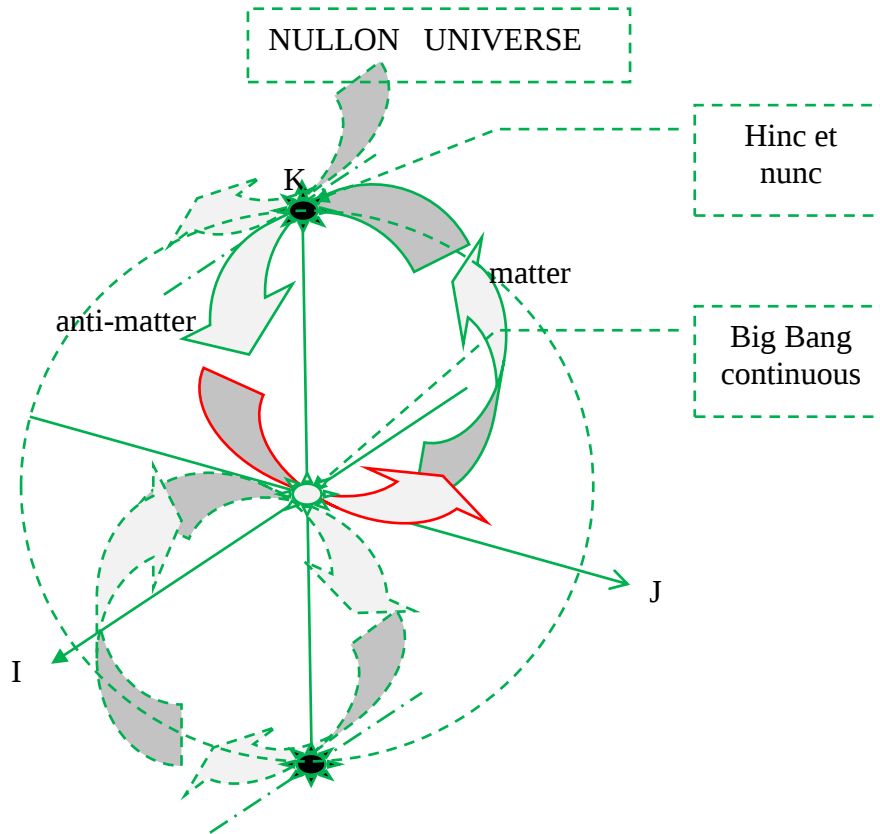
Although every direction in $I \diamond K$ plane is inertial, the local $K \diamond$ axis indicates the absolute rest condition with respect to the totality of the universe and as such is directly correlated to Hubble's velocity.

Defining:

$$R_{\omega\parallel} = c/H_0 = \alpha^{-1} e^{(\alpha^{-1})} \quad R_{\omega\perp} = 2\pi R_{\omega\parallel} = 2\pi c/H_0 = 2\pi \alpha^{-1} e^{(\alpha^{-1})}$$

We have $T_0 = \text{Universe age} = R_{\omega\parallel} \quad A_{\omega\parallel} = 1/R_{\omega\parallel}$

The principle of reason claims that the present is based on the historical reconstruction of the past up to a starting point known as the Big Bang.



The present, on the opposite side, is the point where matter coming from the Big Bang, after a travel lasted R_{ω} years, reverses and begins his return journey as antimatter. The present is the place where matter meets anti-matter and forms the baryonic matter (ordinary matter). The age and the radius of universe is constant.

Moving toward cosmology area, we can find that the relation has an absolute limit in the Universe Radius R_{ω} , since zero and infinite are not physical number.

$$\frac{R_I}{r} = V_e = \frac{r}{R_\omega}$$

$$v = \tanh \gamma = \frac{r_A}{\tau_1(1-V_e) + r_A} = \frac{\sin \gamma \left(1 - \frac{1}{2} \sin \gamma^\diamond\right)}{\left(1 - \sin \gamma^\diamond\right)^2 + \sin \gamma^\diamond \left(1 - \frac{1}{2} \sin \gamma^\diamond\right)} = \frac{1 - \left(1 - \sin \gamma^\diamond\right)^2}{1 + \left(1 - \sin \gamma^\diamond\right)^2} = \frac{1 - K^{\diamond 2}}{1 + K^{\diamond 2}}$$

Therefore, we have the equivalence of the three redshifts:

$$\text{Gravitational redshift} \quad 1+z = \frac{1}{1 - \frac{R_I^*}{r}} = \frac{1}{1 - V_e} = \frac{1}{1 - \sin \gamma}$$

$$\text{Doppler redshift} \quad 1+z = \sqrt{\frac{1+v}{1-v}} = \frac{1}{K^\diamond} = \frac{1}{1 - \sin \gamma}$$

$$\text{FLRW redshift} \quad 1+z = \frac{1}{a} = \frac{\sigma}{r} = \frac{t}{\tau} = \frac{1}{K^\diamond} = \frac{1}{1 - \sin \gamma}$$

Two objects moving away at speed v , will continue to move away until their vertex 0, drawing back, will reach the big bang point where their Doppler redshift equals their FLRW redshift and their gravitational redshift.

Furthermore, the intention relationship and the constancy of $t_1 = R_\omega$ constrain directly the matter of the Universe.

About Universe metric,

$$\text{From } M_v(D) = \int 4\pi D^2 \rho_{v(D)} dD \equiv \frac{c^2}{G} \frac{D^2}{R_\omega} 2$$

$$\rho_{v(D)} = \frac{c^2}{8\pi G} 2 \left(\frac{4}{DR_\omega} \right)$$

we derive

$$\text{and since } p_v = \frac{M_v A}{4\pi D^2} \text{ where } A = c^2 \frac{dV}{dr} = c^2 \frac{1}{R_\omega} \text{ we have } p_v = \frac{c^4}{8\pi G} 2 \frac{1}{R_\omega^2}$$

$$T^{ik} = \begin{pmatrix} \rho_\nu & 0 & 0 & 0 \\ 0 & p_\nu & 0 & 0 \\ 0 & 0 & p_\nu & 0 \\ 0 & 0 & 0 & p_\nu \end{pmatrix} = \begin{pmatrix} \frac{c^4}{8\pi G} 2 \frac{4}{DR_\omega} & 0 & 0 & 0 \\ 0 & \frac{c^4}{8\pi G} 2 \frac{1}{R_\omega^2} & 0 & 0 \\ 0 & 0 & \frac{c^4}{8\pi G} 2 \frac{1}{R_\omega^2} & 0 \\ 0 & 0 & 0 & \frac{c^4}{8\pi G} 2 \frac{1}{R_\omega^2} \end{pmatrix}$$

since $T_i^i = \rho - 3p$

$$T = \frac{c^4}{8\pi G} 2 \frac{4}{DR_\omega} - 3 \frac{c^4}{8\pi G} \frac{1}{R_\omega^2}$$

$$T_0^{*-} = T_0^0 - \frac{1}{2}T = \frac{c^4}{8\pi G} \frac{4}{DR_\omega} - 3 \frac{c^4}{8\pi G} \frac{1}{R_\omega^2}$$

$$T_1^{1*} = T_1^1 - \frac{1}{2}T = -\frac{c^4}{8\pi G} \frac{4}{DR_\omega} + 3 \frac{c^4}{8\pi G} \frac{1}{R_\omega^2}$$

Therefore,

$$e^{-\lambda} \left(\frac{\lambda'}{D} - \frac{1}{D^2} \right) + \frac{1}{D^2} = \frac{4}{DR_\omega} - 3 \frac{1}{R_\omega^2}$$

which admits one solution $e^{-\lambda} = \left(1 - \frac{D}{R_\omega} \right)^2$

Therefore, the metric of universe is

$$c^2 dl^2 = \left(1 - \frac{R_I}{r} \right)^2 c^2 dt^2 - \frac{dr^2}{\left(1 - \frac{R_I}{r} \right)^2} - r^2 d\vartheta^2 - r^2 \sin^2 \vartheta d\varphi^2$$

Or, since $R_I/r = r/R_\omega$

$$c^2 dl^2 = \left(1 - \frac{r}{R_\omega} \right)^2 c^2 dt^2 - \frac{dr^2}{\left(1 - \frac{r}{R_\omega} \right)^2} - r^2 d\vartheta^2 - r^2 \sin^2 \vartheta d\varphi^2$$

Now, according to the constant of motion, $dt(1-V_e) = d\tau/(1-V_e)$

$$c^2 dl^2 = \frac{c^2 d\tau^2}{\left(1 - \frac{r}{R_\omega} \right)^2} - \frac{dr^2}{\left(1 - \frac{r}{R_\omega} \right)^2} - r^2 d\vartheta^2 - r^2 \sin^2 \vartheta d\varphi^2$$

Now, the path of light in the universe

is not reflection: $dl = 0 = d\tau - dr$

but consummation: $dR_I = d\tau - dr$ or $\sin\gamma dr = d\tau - dr$ or $0 = d\tau - (1 + \sin\gamma) dr$

therefore, we must replace r with $r(1 + \sin\gamma) = r(1 + R_I/r)$

Denoting with $a(t) = \frac{\tau}{R_\omega} = \left(1 - \frac{R_I}{r}\right) = (1 - \sin \gamma) = 1 - \frac{r}{R_\omega}$

We have at last:

$$ds^2 = c^2 d\tau^2 - a(t)^2 (2 - a(t))^2 \left(\frac{dr^2}{\left(1 - \frac{R_I}{r}\right)^2} - r^2 d\vartheta^2 - r^2 \sin^2 \vartheta d\varphi^2 \right)$$

At last, since $dr = d\sigma = d\tau = \tau d\gamma = R_\omega (1 - \sin \gamma) d\gamma$

or also, $r = R_\omega \sin \gamma$ $dr = R_\omega d(\sin \gamma) = R_\omega (1 - \sin \gamma) d\gamma$

we have the Metric of Universe in the form:

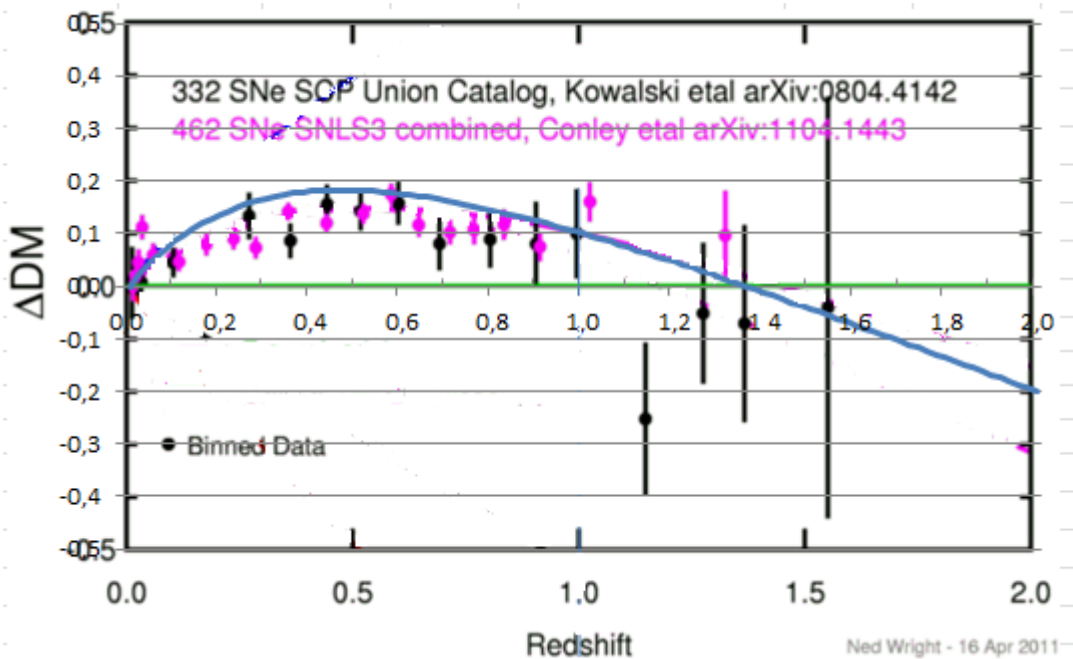
$$ds^2 = c^2 d\tau^2 - a(t)^2 (2 - a(t))^2 (R_\omega^2 d\gamma^2 - r^2 d\vartheta^2 - r^2 \sin^2 \vartheta d\varphi^2) \quad [37]$$

$$\text{since } z = \frac{V_e}{1 - V_e} = \frac{\sin \gamma}{1 - \sin \gamma} \text{ then } \gamma = \arcsin\left(\frac{z}{1 + z}\right)$$

$$R_\omega \chi = D_{\text{now}} = \int_0^\gamma R_\omega d\gamma + \int_0^\gamma R_\omega \sin \gamma d\phi = R_\omega (1 + \sin \gamma) \gamma \quad [38]$$

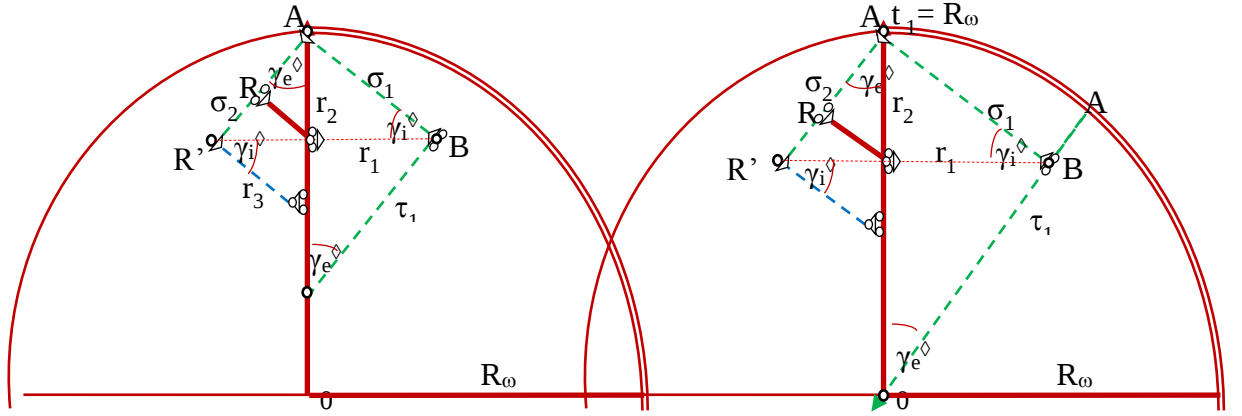
$$D_A = a(t) D_{\text{now}} = R_\omega (1 - \sin^2 \gamma) \gamma \quad [39]$$

$$D_{\text{Luminosity}} = D_L = \frac{D_A}{a^2} = R_\omega \frac{1 + \sin \gamma}{1 - \sin \gamma} \gamma \quad [40]$$



Analogously, in the gravitational intention between two individuals, we have a limit

$$t_{1Max} = R_{\omega}$$



To find again, by other means, the metric outside a massive body, we start from

$$ds^2 = e^{\nu} c^2 dt^2 - D_k^2 (d\theta^2 + \sin^2 \theta d\varphi^2) - e^{-\lambda} dD_k^2$$

which gives:

$$\begin{cases} e^{-\lambda} \left(\frac{\nu'}{D_k} + \frac{1}{D_k^2} \right) - \frac{1}{D_k^2} = -\frac{8\pi G}{c^4} [T_{b1}^1 + T_{v1}^1] \\ e^{-\lambda} \left(\frac{\lambda'}{D_k} - \frac{1}{D_k^2} \right) + \frac{1}{D_k^2} = \frac{8\pi G}{c^4} [T_{b0}^0 + T_{v0}^0] \\ \dot{\lambda} = 0 \end{cases}$$

Where T_b is the baryonic mass while T_v is the residual intention energy in the vacuum.

Now, in the case of central symmetry in the vacuum, T_b cancels but T_v does not.

$$\begin{cases} e^{-\lambda} \left(\frac{\nu'}{D_k} + \frac{1}{D_k^2} \right) - \frac{1}{D_k^2} = \frac{8\pi G}{c^4} T_1^{1*} \\ e^{-\lambda} \left(\frac{\lambda'}{D_k} - \frac{1}{D_k^2} \right) + \frac{1}{D_k^2} = \frac{8\pi G}{c^4} T_0^{0*} \end{cases}$$

Letting $\lambda = -\nu$ and $T_0^{0*} = -T_1^{1*} = \frac{c^4}{8\pi G} \left(\frac{4}{DR_{\omega}} - \frac{3}{R_{\omega}^2} \right)$ we reduce to the only equation:

$$e^{-\lambda} \left(\frac{\lambda'}{D_k} - \frac{1}{D_k^2} \right) + \frac{1}{D_k^2} = \frac{4}{DR_\omega} - \frac{3}{R_\omega^2} \quad [41]$$

Therefore, outside $D_{k\max}$, in the vacuum, $D=R_\omega$ and

$$e^{-\lambda} \left(\frac{\lambda'}{D_k} - \frac{1}{D_k^2} \right) + \frac{1}{D_k^2} = \frac{1}{(R_\omega)^2} \quad [42]$$

which admits two solutions $e^{-\lambda} = \left(1 - \frac{k_0}{D_k}\right)^2$ and $e^{-\lambda} = 1 - \left(\frac{k_0}{D_k}\right)^2$ [43]

for both $e^{-\lambda} = \left(1 - \frac{k_0}{D_k}\right)^2$ and $e^{-\lambda} = 1 - \left(\frac{k_0}{D_k}\right)^2$ we get :

$$\frac{k_0^2}{D_{k\max}^4} = T_0^0 = \frac{1}{R_\omega^2} \quad [44]$$

where replacing k_0 with R_g , we have

$$c^2 d\tau^2 = \left(1 - \frac{R}{D_k}\right)^2 c^2 dt_K^2 - \frac{dD_k^2}{\left(1 - \frac{R}{D_k}\right)^2} - D_k^2 d\varphi^2 \quad [45]$$

And $\frac{R_g^2}{D_{k\max}^4} = \frac{1}{R_\omega^2}$ From which $r_{\max} = \sqrt{R_{Tot} R_\omega}$ [46]

Since, $r_K = \sqrt{R_{Tot} t}$ and $r_I = \sqrt{R_I t}$

follows $\frac{r_K}{r_I} = \sqrt{\frac{R_K}{R_I}}$ [47]

$$A = \ddot{r}_k = \frac{d^2 r_K}{dt^2} = \frac{R_K + R_I}{r^2} \quad [48]$$

and by definition

$$A = A_K = \frac{R_K}{r_K^2} = A_I = \frac{R_I}{r_I^2} = A_K \sin^2 \xi + A_I \cos^2 \xi$$

where $r_K^2 + r_I^2 = r^2$ and $\sin \xi = \frac{r_K}{r} = \sqrt{\frac{R_K}{R_K + R_I}}$ and $\cos \xi = \frac{r_I}{r} = \sqrt{\frac{R_I}{R_K + R_I}}$ [49]

or

$$A = \frac{V}{r} = A_K = \frac{V_K}{r_K} = A_I = \frac{V_I}{r_I} = \frac{V_K}{r_K} \sin^2 \xi + \frac{V_I}{r_I} \cos^2 \xi = \frac{V_K \sin \xi + V_I \cos \xi}{r} = \frac{V \sin^2 \xi + V \cos^2 \xi}{r}$$

where $V = \frac{R_K r}{r_K^2} = \frac{V_K}{\sin \xi} = \frac{R_I r}{r_I^2} = \frac{V_I}{\cos \xi} = \frac{R_K + R_I}{r}$ [50]

$$V_K = \frac{R_K}{r_K} = \sin \mu = v_{K_\perp}^2 \quad \text{and} \quad V_I = \frac{R_I}{r_I} = \frac{1}{\cos \xi} \sin \gamma = \frac{1}{\cos \xi} v_{I_\perp}^2 \quad [51]$$

In the case of circular orbit we must use, for the determination of $R_{I\perp}$, the $R_{\omega\perp} = 2\pi R_{\omega\parallel} = 2\pi c/H_0$

$$A_{centrifugal} = \frac{\tanh^4 \gamma'}{R_K} = \frac{v_{K_\perp}^2}{r_K} = A_{gravitational} = \frac{R_K + R_I}{r^2} \Rightarrow v_{K_\perp} = \tanh \gamma' = \sqrt[4]{\frac{R_K + R_I}{r^2} R_K} \quad [52]$$

and

$$r_{K_\infty} = \lim_{D \rightarrow \infty} \sqrt{\frac{R_K}{R_K + R_I}} r = \lim_{D \rightarrow \infty} \sqrt{\frac{R_K R_\omega}{R_K R_\omega + r^2}} r = \sqrt{R_K R_\omega} \quad [53]$$

$$v_\infty = \lim_{r \rightarrow \infty} \sqrt[4]{\frac{R_K + R_I}{r^2} R_K} = \lim_{r \rightarrow \infty} \sqrt[4]{\frac{R_K R_\omega + r^2}{r^2} \frac{R_K}{R_\omega}} = \sqrt[4]{\frac{R_K}{R_\omega}} \quad [54]$$

At last, we find that the predictions for the galaxy rotation curves from Intention physics, MSTG and Milgrom's Mond agree remarkably for all of the 101 galaxies reported in J.R.Brownstein and J.W.Moffat 2005. In particular, we adopted the mass

distribution model $R_g(D) = R_{gTot} \left(\frac{D}{D_c + D} \right)^{3\beta}$ of a spherically symmetric galaxy, where D_c is the inner core and $\beta=1$ for HSB galaxies and 2 for LSB and Dwarf galaxies, and used the R_{gTot} and D_c of the Milgroms solution, with no need of any further parameter.

It is relevant that the Newton velocity, once replaced the total distance r with the distance r_k along the K axis, agrees exactly with the experimented values everywhere. In the figure below we have $r_k=f(r)$ where r_k , at first close to r , approaches asymptotically

r_{K_MAX} increasing r .

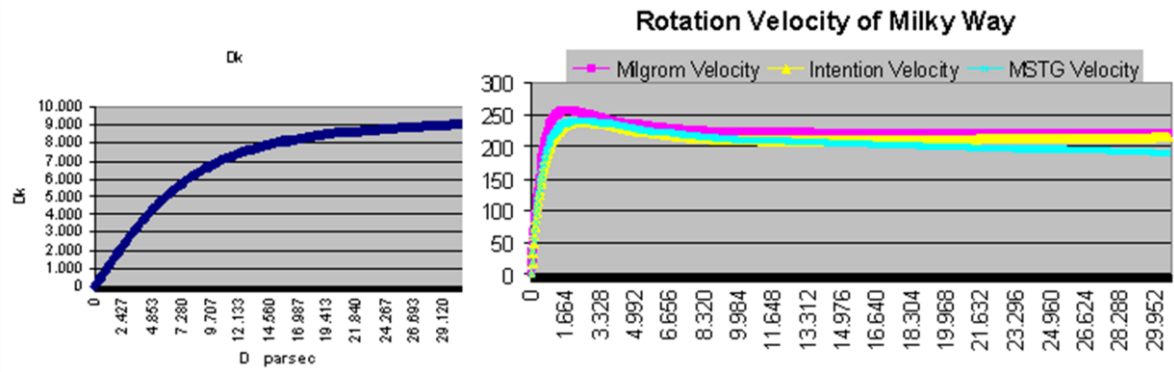
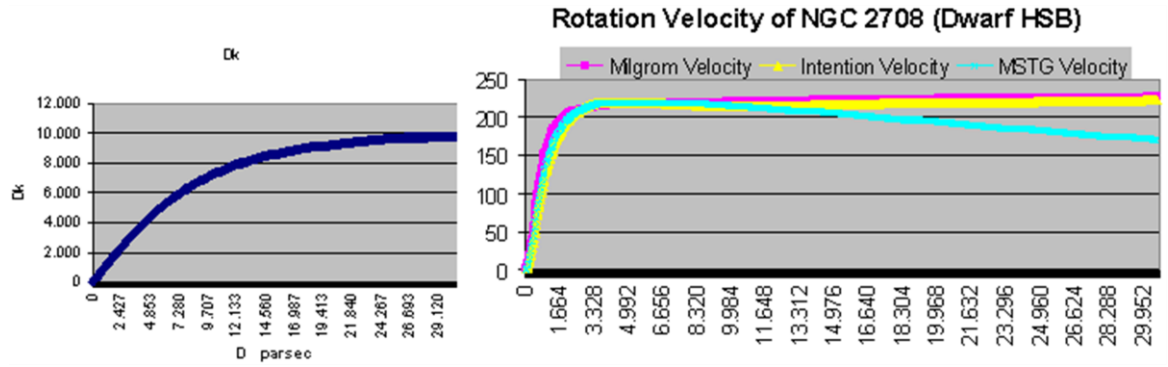


Fig. 5– rotation curve of Milky Way. $D_{K_MAX} = \sqrt{(R_g S_{\odot \omega})} = \sqrt{(10.6 \times 10^{10} R_{\odot} 5.383524 \times 10^{-26})}$ meters = 2.9×10^{20} meters or 9.42×10^3 parsec



At last, since

$$V = \frac{R_K r}{r_K^2} = \frac{R_I r}{r_I^2} = \frac{R_K + R_I}{r} \quad [55]$$

and therefore

$$L = g_{00} = (1 - V)^2 = \left(1 - \frac{R_K + R_I}{r}\right)^2 \quad [56]$$

the mass R_I , giving reason of orbital velocity in galaxies and lensing, corresponds to dark matter.

Very interesting is the determination of the barycentre.
From

$$\sum_{i=1}^n (M_{Ki} \ddot{r}_{Ki}) = M_{K_Tot} \ddot{r}_K$$

we have the barycentre coordinates:

$$r_K = \frac{\sum M_{Ki} r_{Ki}}{M_{K_Tot}} = \frac{\sum \frac{M_{Ki}^{3/2}}{\sqrt{M_{Ki} + \frac{r_i^2}{R_\omega}}} r_i}{M_{K_Tot}} = \sum \frac{M_{Ki} r_{KMaxi}}{M_{K_Tot} \sqrt{r_{KMaxi}^2 + r_i^2}} r_i \quad [57]$$

Where the barycenter, outside the r_{Kmax} perimeter of any attractor where the Acceleration becomes constant and equal to $1/R_\omega$, reduces to a gradient which emerges from and reveals a contour plane.

A huge quantity of mass, fractioned in little parts far away, is negligible with respect to a much smaller quantity of mass concentrated in bigger parts.

At last, the presumed direct proof of Dark matter [Clowe *et al.* 2006], given by the recent observed collision of two clusters of galaxies ("bullet cluster" 1E0657-56), where it is shown that the sources of gravity in the cluster are not located where the ordinary matter is located, can be explained by the correct determination of the barycentre. Intention physics, indeed, predicts the irrelevance of the huge quantity of dominant tiny matter component, that is the X-ray plasma clouds, with respect to the very more large masses constituted by the galaxy clusters.
The barycentre gives reason also of the large structure of universe.

SECTION III Metaphysics

Does not exist the individual in se and per se, independent, but exists the eternal Relation between the Amorone and the Universe, which, not being composed, are absolutely beyond the range of physics. The Relation itself is incognizable.

From the temporal succession of interactions spring the $\aleph = R_\omega/R_\alpha$ number of amoroni that, interacting gravitationally, form the space of potency of the universe and the emergent composite individuals. First of all, the electron, therefore all the mirroring universe scale.

In the instant of the present snapshot, which is the datum of physics, in not present the life or the live true time. Besides the Principle of reason, that establishes the logical coherence and the foundation of the present on the past, we should believe in a principle of reality that establishes the existence (continue over time) of individuals in relations and the existence (continue over time) of the live true time and the reality of the

previous instants as historically reconstructed from the reflective snapshot of the present instant.

This principle should be based on ourselves. The life is more primitive of the space and the life is the subject of the space.

Physics, and theories in general, as based on reflection, cannot indagare on the life in self. As engaged in intention with Foundation, we become individual and receive the life incarnating in the physical space of the intention. The physical space is therefore the language and the context of this intention.

Conclusion

We assert that our world is a mirroring world. That is a world where exist only individuals in relations, whose only effect is to mirror, and whose only object of mirroring is their potentiality or space-time which is all that they have and, therefore, their only characteristic.

Now, the starting point of intention physics is the evidence that in a mirroring world, the unique newness, which every time renovates the world making it entirely new, is the donation, as result of a decision, by a donor to a receiver of its own potentiality, which turns in energy in the act of donation. Although the act of donation is outside the mirroring world, this last one is entirely shaped by and functional and waiting for this donation. In the mirroring world, still in the instant, this act is the presumed jump that ties together this world with the presumed predecessor or successor. This jump is the mystery, as it goes beyond the being and the essence, outside space-time and logic from which leaves and to which comes back, going through the freedom that takes place in the live true time of existentialism.

Indeed the Intention structure predicts two parallel and alternating paths closely intermeshed, that each presumes the other, each affects the other, each is incomprehensible without the other. The first is the live true time that opens in the succession of actualisations where, as result of a decision, an individual donates its own energy to the conjugated other. The second, ground of the decision, is the intermediate period of the absolute potentiality which, mirrored in the conjugated individuals, discloses in a quadruple form. In particular, mirrored in the hinc and nunc of an individual it gives rise to the relative time of memory and of expectative (as the identity of the “self”) and to the relative space of potentiality of donating and receiving (as the difference of the “other”). In the potentiality period of intention, the other is different and external to the self, separated by an abyss, while in the reflective vision the space reveals all the different individuals contemporaneously present and external to each other. Therefore, space and time are not two different things, they are two conjugated aspects of one same reality: $s_i = t_i$, not only as mere metric conversion formalism, as relativistic physics already does.

We affirm that whichever existent exists in the intention, since the intention is primitive and the nesting of intentions gives place to new reflective intentions of higher level. As a result, the sole principle of intention physics is not restricted to the bottom intentions, but it extends to whichever intention to whichever reflective level it could emerge, as well in the range of quantum mechanics or standard model, as in the range of general relativity and cosmology. Indeed, no one only process of our everyday life is not governed by it.

At last, Hegel defended himself from criticisms saying “*Newton gave physics an express warning to beware of metaphysics, it is true, but to his honour be it said, he did not by any means obey his own warning. The only mere physicists are the animals: they alone do not think: while man is a thinking being and a born metaphysician. The real question is not whether we shall apply metaphysics, but whether our metaphysics are of the right kind: in other words, whether we are not, instead of the concrete logical Idea, adopting one-sided forms of thought, rigidly fixed by understanding, and making these the basis of our theoretical as well as our practical work.*” (Hegel’s Logic)

Nevertheless, the sole principle of everything cannot rest on a logical idea, beyond the range of both objective and existential experiences: the dialectic must be the revelation of some more profound principle. Indeed, to the Hegel’s dialectic of mirrors, inside the Idea, we substitute the mirroring dynamic of Intention between two distinct individuals that freely make themselves each mirror of the other.

The sole principle, which must mirror itself in everything, even if, in itself, cannot not be beyond the range of objective experience, nevertheless it must gain its legitimacy from its being an existential, directly at the hearth of our consciousness. Better still, it must be the sole principle of the true existential philosophy, the sole capable at last to unify interiority and exteriority showing that objective experiences correspond to subjective experiences as the external to the internal, being each the reflection of the other.

The beginning is not the space or the matter, but it is the individual in the intention. The space, and the form which fill it, is not substance, it is the image that an individual endowed of interiority receives in the intention with Foundation, source of the life, which creates and maintains him in existence.

The seed of our external world is the same seed of our consciousness, and we know, in the innermost of our consciousness, that to live is overcoming abyss separating ourselves from the other. The laws of physics, at last, are only the emergent flowering of the seed below, and this seed is love fulfilled through charity.

References

1. Parmenide, On Nature
2. Aristotle, *Physics*
3. Aristotle, *Metaphysics*
4. G.Galilei, Dialogo sui due Massimi sistemi del mondo
5. Einstein, Albert (1907), "Über das Relativitätsprinzip und die aus demselben gezogene Folgerungen", *Jahrbuch der Radioaktivität und Elektronik*, 4: 411
6. Einstein, Albert (1915), "Die Feldgleichungen der Gravitation", *Sitzungsberichte der Preussischen Akademie der Wissenschaften zu Berlin*: 844–847
7. Einstein, Albert (1916), "Die Grundlage der allgemeinen Relativitätstheorie", *Annalen der Physik*, 49: 769–822
8. Einstein, Albert (1917), "Kosmologische Betrachtungen zur allgemeinen Relativitätstheorie", *Sitzungsberichte der Preussischen Akademie der Wissenschaften*: 142
9. [Born, M.](#) (1927). Physical aspects of quantum mechanics, *Nature* **119**: 354–357, "

10. [Bohr, N.](#) (1928). "The Quantum postulate and the recent development of atomic theory". *Nature*. **121**: 580–590
11. [Heisenberg, W.](#) (1930). *The Physical Principles of the Quantum Theory*, translated by C. Eckart and F.C. Hoyt, University of Chicago Press.
12. ["Heisenberg – Quantum Mechanics, 1925–1927: The Uncertainty Relations"](#).
13. Schrodinger, Erwin (1926). "Quantisierung als Eigenwertproblem". *Annalen der Physik*. 384 (4): 273–376.
14. Dirac P. A. M., *Proc. R. Soc. London A*267, 148 (1938).
15. Wheeler J. A. and Feynman R. P., *Rev. Mod. Phys.* **17**, 157 (1945); and *Rev. Mod. Phys.* **21**, 425 (1949).
16. Milgrom, M. 1983, *ApJ*, 270, 365
17. J. R. Brownstein and J. W. Moffat, *astro-ph/0506370 v4* 22 Sep 2005
18. Peter Rowlands *viXra:0702.0058* submitted on 25 Feb 2007
19. G.W.F. Hegel, *Logic*