Gravity as a quantum entity

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Abstract: The gravitational pull exists as the Universe is collapsing. And why is it collapsing? For quantum-statistical reasons, that is, it must do that in order not to violate the Principle of Conservation of Energy (unjustifiable appearing of energy from nothing) or, by the same token, to respect the quantum Indetermination Principle of Heisenberg, which must be respected by all the particle-antiparticle pairs, which ideally fill the Universe itself, and them themselves have to disappear, sooner or later.

Prevailing science itself tells us the electric force, which fully rules the motion of an electron around a proton, in a hydrogen atom H, for instance, is enormously stronger than the gravitational one, which, on the contrary, fully rules the motion of galaxies and that of the Universe, as well, more generally. But now, we cannot avoid to see that the dimensions of atoms are, by the same token, enormously smaller than those of the Universe and, more consistently, than those of my Universe. On the basis of all that, do you think it's all about a coincidence? Come on….. Maybe they do, but not us. Moreover, it seems all things around us (matter, light, photons etc) have to do with waves. Fourier himself suggests to see all on an oscillatory basis. And remember that, according to Fourier, even a piece of line can be developed in terms of waves. And also the music coming from an orchestra can be considered as a composition of single and simple sounds, with suitable frequencies and amplitudes. As well as it's true all atoms make the Universe, it's also true forces ruling the atom (Coulomb) gather, so making the force ruling the Universe (Newton). Moreover, an atom can contract and expand back very fast, with a very high frequency. This is what happens when you hit an anvil by a hammer: atoms of iron contract and then expand back, so pushing away the hammer and making it bounce. The anvil, as well, can jerk, upwards and then downwards, but slower than atoms, of course. The anvil is like the Universe, with its slow jerk, expanding and then collapsing back. And you can have a proof that atoms and the Universe easily follow Hooke's Law for springs. The electrical attraction of Coulomb and the gravitational one of Newton (which, as chance would have it, have the same inverse square behaviour, with respect to the distance) are the same force. And what about the magnetic force? It's just a surrogate of the electric one. And what about the nuclear ones? I don't know, but the development in series of Fourier will be used for them, as well; moreover, it really seems the motion of the Universe does not depend on them, as well as pioneers of physical chemistry didn't take into account nuclear forces to describe the behaviour of gases and of matter. Someone says the electric force can be also repulsive, while the gravitational one can't. WRONG! The gravitational one can be repulsive, as well! But the Universe is like a slow elephant which does not show us what we like in any moment, but it takes its time in moving. Now it's collapsing back (and the attractive gravitational force is an unquestionable proof for that), but a long time ago, when it was expanding, matter showed mutual repulsion. In fact, in a figure on the development of Fourier of a square wave, in a half cycle of the Universe (for instance, in the collapsing one) atoms can both expand and contract (in a single half-wave you can see both small positive and negative halfwaves). Moreover, the proton (nucleus), which is more massive than the electron (outer peel), is showing us that in the small world of building atoms, you find a higher mass value as long as you move from the outer side to the inner one…We are collapsing! Definitely!

In other words, why is the proton more massive than the electron? Simply because the Universe which contains them is collapsing! But after all, the prevailing science itself is unconsciousnessly encouraging us in thinking all that; in fact, they tell us the Universe is accelerating (Ia-type supernovae). But if it expanded, then, by inertia, it would do it by also slowing down, not up…Their choice was that of inventing a dark energy, in order to justify such an enormous inconsistency, so also providing themselves with a huge job to search for such mysterious dark energy. On the contrary, I remove such a huge job, by looking at the Universe as it is and as it sincerely shows.

And I leave for them all non provable ghosts, as the unfound dark matter, the unfound dark energy, the passed away cosmic ether, the awkward superluminal neutrinos, faster than light etc.

Well, we have to admit that if matter shows mutual attraction as gravitation, then we are in a harmonic and oscillating Universe in contraction towards a common point, that is the center of mass of all the Universe. As a matter of fact, the acceleration towards the center of mass of the Universe and the gravitational attractive properties are two faces of the same medal. Moreover, all the matter around us shows it wants to collapse: if I have a pen in my hand and I leave it, it drops, so showing me it wants to collapse; then, the Moon wants to collapse into the Earth, the Earth wants to collapse into the Sun, the Sun into the centre of the Milky Way, the Milky Way into the centre of the cluster and so on; therefore, all the Universe is collapsing. Isn't it?

So why do we see far matter around us getting farther and not closer? Easy. If three parachutists jump in succession from a certain altitude, all of them are falling towards the center of the Earth, where they would ideally meet, but if parachutist n. 2, that is the middle one, looks ahead, he sees n. 1 getting farther, as he jumped earlier and so he has a higher speed, and if he looks back at n. 3, he still sees him getting farther as n. 2, who is making observations, jumped before n. 3 and so he has a higher speed. Therefore, although all the three are accelerating towards a common point, they see each other getting farther.

Hubble was somehow like parachutist n. 2, who is making observations here, but he didn't realize the collapsing acceleration.
At last, I remind you again of the fact that recent measurements on Ia type supernovae in far galaxies, used as standard candles, have shown an accelerating Universe; this fact is against the theory of our supposed current post Big Bang expansion, as, after that an explosion has ceased its effect, chips spread out in expansion, ok, but they must obviously do that without accelerating. Sometimes, someone says that for two parachutists who are perfectly parallel each other, there wouldn't be any getting farther. Well, that's a limit situation in which the exception proves the rule. Nowadays, in the Hubble's Law for the expansion of the Universe, you cannot even number the exceptions.
We have to admit that waves have a lot to do with the Universe. A photon is a wave (also) and matter is wave, somehow, through the Schrodinger equation. Moreover, a particle and an antiparticle, by annihilation, generate photons, so waves, and, on the contrary, we can have particles starting from photons.
For instance, an oscillating spring is representable by a wave.
In case of electromagnetic waves (photon), the wave is representable, indeed, by the Wave Equation of D'Alembert. In case of matter, the equation is that of Schrodinger.
We know that in reality almost all the matter in the Universe is not made of e^+e^- pairs, but rather of p^+e^- pairs of hydrogen atoms H, but we are now interested in considering the Universe as made of basic bricks, or in fundamental harmonics, if you like, and we know that electrons and positrons are basic bricks, as they are stable, while the proton doesn't seem so, and then it's neither a fundamental harmonic, and so nor a basic brick.
It is something like an ex positron, compressed/become fatter by the collapsing phase in which we are now.
Every pair e^+e^- (or, for the moment, also p^+e^- (H), if you like) is a small spring and, for the same reason, the Universe is a big oscillating spring (now contracting towards its center of mass).
Imagine a bag filled with small springs, such as those you can find in pens. Now, close it, make a ball out of it and sit on it. The bag will spring and so do the internal springs. The bag is the Universe and the small springs are all the atoms in the Universe.
So far, we have given a very spacelike and little timelike representation of the Universe.
Time is just the name which has been assigned to a mathematical ratio relation between two different spaces; when I say that in order to go from home to my job place it takes half an hour, I just say that the space from home to my job place corresponds to the space of half a clock circumference run by the hand of minutes. In my own opinion, no mysterious or spatially four-dimensional stuff, as proposed by the STR (Special Theory of Relativity). On the contrary, on a mathematical basis, time can be considered as the fourth dimension, as well as temperature can be the fifth and so on.
In many universities, the speed of light (c=299.792,458 km/s) is an upper speed limit and is constant to all inertial observers, by "principle" (unexplainable and unexplained). Such a concept, as a matter of fact, is presented as a "principle" by them.
The speed of light (c=299.792,458 km/s) is an upper speed limit, but neither by an unexplainable mystery, nor by a principle, as asserted in the STR and also by Einstein himself, but rather because (and still in my opinion) a body cannot move randomly in the Universe where it's free falling with speed c, as it's linked to all the Universe around, as if the Universe were a spider's web that when the trapped fly tries to move, the web affects that movement and as much as those movements are wide ($v\sim c$), that is, just to stick to the web example, if the trapped fly just wants to move a wing, it can do that almost freely ($v<<c$), while, on the contrary, if it really wants to fly widely from one side to the other on the web ($v\sim c$), the spider's web resistance becomes high (mass which tends to infinite etc).
Or it's like being in a bus and run in it by a speed higher than that of the bus itself; you would get out of the bus, but getting out of the Universe doesn't make any sense, so you become part of the bus, which protrudes ahead, if you try to get out of it, so being inhesorably caught into the bus.
Having the speed of light and not having a rest mass are equivalent concepts. In fact, the photon rest mass is zero and it's got the speed of light, indeed. Moreover, it has the same speed (c) for all inertial observers. This peculiarity, too, is shown nowadays as an unexplainable and unexplained principle, but it can have clear explanations: first of all, the observer can carry out speed measurements by using the fastest thing he knows, the light, and this gives a first explanation of the constancy of c.
Moreover, the photon cannot be either accelerated or decelerated (constancy of c) because accelerating an object means fully interact with it, by catching it and throwing it again faster.
I'm here denying the possibility to really catch a photon; I give an example: if I catch an insect by a net and then I leave the net, I cannot still say I stopped the fast flight of that insect, as it could go on flying fast also into the net, so showing us that it cannot be fully caught. If now we go back to the photon, it cannot eather be absolutely caught by the matter, or accelerated; it is kept into the matter as heat, or orbiting around an electron or in whatever form you like, as well as forward and reflected waves (which are typically propagating) are trapped in a standing wave which is created by themselves when, for instance, you hit the free surface of the water in a basin!

If now we go back to the appearing of the Universe, through the appearing of particles and antiparticles (+ and -), a particle-antiparticle pair, which corresponds to an energy ΔE, is legitimated to appear anyhow, unless it lasts less than Δt, in such a way that $\Delta E \times \Delta t = \hbar/2$ (extrapolated from the Heisenberg Indetermination Principle); in other words, it can appear provided that the observer doesn't have enough time, in comparison to his means of measure, to figure it out, so coming to the ascertainment of a violation of the Principle of Conservation of Energy, according to which nothing can be eather created or destroyed.
In fact, the Universe seems to vanish towards a singularity, after its collapsing (Big Crunch), or taking place from nothing, during its inverse Big Bang-like process, and so doing, it would be a violation of such a conservation principle, if not supported by the above Indetermination Principle.
The appearing of a pair (+ and -) corresponds to the expansion of a small spring, while the approaching, one another, of the particles (+ and -), which is the annihilation, corresponds to the contraction and releasing of the small spring.
The appearing and the annihilation, on a small scale, correspond to the expansion and contraction of the Universe, on a large scale.
And according to my previous works, published on the web, I proved that the atomic systems, made of particles + and -, and also the gravitational ones (such as the Universe) respect the Hooke's Law, as chance would have it, so they behave as springs!
Therefore, in my opinion, the Universe is a big oscillating spring, between a Big Bang and a Big Crunch. Someone wonders if the next Big Bang creates again an identical Universe (and so if we will be as well as we are now), but also if that were true, nobody could verify that, as with the Big Crunch every memory and every possibility of memory and of verification would be destroyed; so, we can only talk about one Universe, this one, here and now.
Then, if now we were in an expanding Universe, we wouldn't have any gravitational force, or it were opposite to how it is now, and it's not true that just the electric force can be repulsive, but the gravitational force, too, can be so (in an expanding Universe); now it's not so, but it was!
The most immediate philosophical consideration which could be made, in such a scenario, is that, how to say, anything can be born (can appear), provided that it dies, and quick enough; so the violation is avoided, or better, it's not proved/provable, and the Principle of Conservation of Energy is so preserved, and the contradiction due to the appearing of energy from nothing is gone around, or better, it is contradicting itself.
The gravitational pull exists as the Universe is collapsing. And why is it collapsing? For quantum-statistical reasons, that is, it must do that in order not to violate the Principle of Conservation of Energy (unjustifiable appearing of energy from nothing) or, by the same token, to respect the quantum Heisenberg Indetermination Principle, which must be respected by all the particle-antiparticle pairs, which ideally fill the Universe itself, and them themselves have to disappear, sooner or later.
It seems the Universe is taking a somewhat long time to disappear; but, all in all, long and short are relative concepts. A movie is long only at a phenomenal level, that is, only if you want to watch it. If, on the contrary, you only consider the noumenal essence, that is, only the (well known) story, it'is nothing but a single moment in which you can see how it starts, how it develops and how it ends up. From that you can state the illusoriness of time.
The Universe is cyclical. Even though you do not want to accept that, Fourier would make us accept it anyway, as through his developments one can even approach a stretch of a line by sine and cosine, and so through cycles, so providing a cyclical interpretation also where this shows unlikely.
The Universe has a lifetime (a period) very long, but not infinite; for statistical reasons related to the Indetermination Principle, I tell you that when it was expanding, it couldn't do that to the infinite, as it had to grant its disappearing (its collapse) as well as it did, through the same statistical principles, to appear.
Now, as its period is not infinite, its frequency is not zero and all the frequencies in the Universe must be a multiple of it, which is the smallest of all. This is the origin of the quantization!
Many are the extravagant proposals, all accepted by the prevailing physics, on parallel universes made of antimatter, made ad hoc to give oneself an explanation for the fact that in our Universe the matter has prevailed over the antimatter. So doing, they provide for a naive answer to the question about where the antimatter has got to.
The Universe shows as made of hydrogen, almost completely, but also of some helium.
So, we are talking about electrons, protons and neutrons. If then we consider that the neutron contains, for sure, a proton and an electron, we can roughly talk about just ELECTRONS and PROTONS.
Their antiparticles are the positron and the antiproton.
(When I say that a neutron contains, at least, a proton and an electron, it's like if I said that an egg contains a chick; now, you could argue that an egg, on the contrary, contains the albumen and the yolk (quarks), and not a chick, but as I'm certain that from that egg a chick will come out, then I go on thinking that egg=chick or, at least, egg>>chick)
If now we consider the PROTON, whose mass is 1836 times that of the ELECTRON, and if we make it reach the mass of the ELECTRON indeed, then the balance between + and – in the Universe is perfect, as it seems that the Universe contains the same number of PROTONS and ELECTRONS.

We have so given an explanation on why in the Universe the matter has prevailed over the antimatter: in fact, this is not true, as “matter” (+) and “antimatter” (-) were created (or the contrary, if you like) in a perfect numerical balance, with the balance of their masses which lose its balance because of the phases of appearing-disappearing, or expansion-collapse.
Proton is the antimatter of the electron and vice-versa, with the current lack of balance in mass. That’s it. Afterwards, obviously, nowadays we can locally produce small amounts of antiparticles, as well as just with sine and cosine sounds we can produce all possible sounds (Fourier).
Often, and especially in the last days, there is who talks about a Universe which appears from “nothing”; but does talking about nothing make any sense? Moreover, is it possible to imagine a perfect nothing? We will see that it’s exactly in those questions that one can find the legitimation for the Universe and for the physical consistency of its existence.
When we talk about “nothing” with reference to the Universe and its possible origins, we must always take into account that we have to deal with the the Heisenberg Indetermination Principle, from quantum mechanics. I cannot say an electron is exactly there, in that point of sharp coordinates, as measurements of positions, by which I state all that, are measurements, indeed (an evaluation). 100% certainty is impossible, as it would neglect the existence of the indetermination.
By the same token, to say a body has exactly the absolute zero temperature (-273,15°C) is unacceptable, as one would so say its atoms and its molecules have got kinetic thermal energy equal to zero, so saying that one has been able to measure a zero by a 100% accuracy, which is impossible for any instrument.
Moreover, we cannot even say before the Universe there was “nothing” (from which the Universe would be come out), as the act of stating the absolute nothing would be the same as saying an absolute zero has been measured (100%), that is something unacceptable and against quantum mechanics (somehow). Before, we were surprised by the appearing and the existence of the Universe; after the reasonings just carried out, we would start to be surprised by the existance of “nothing”, or by the concept of non existence itself, rather than that of the Universe.
Furthermore, the concept of “before” the Universe is meaningless, as if there was already something before, then we were not talking about the Universe at all; and time is part of the Universe and comes out with it, so a “before” was meaningless.
Also an eternal Universe is meaningless: if the world had ever existed, then what is happening now should have already happened.
And so the concept of absolute immobility and of the (reaching of) thermal absolute zero are meaningless:
-if I want to check and so measure the immobility of a body, I have to interact with it, somehow, by illuminating it etc and so I touch it somehow (also if just by a photon) so changing the immobility I wanted to check.
-if I want to read a thermometer to check if the inside of a refrigerator has reached the absolute zero, no sooner I illuminate the thermometer (also if just by a photon) to read it indeed, I heat it and it transmits some heat to the object supposed to be at the absolute zero kelvin, so spoiling that alleged absolute zero state.
And it’s also true that we cannot even stop touching what is surrounding us; for instance:
-if I don’t look at the Moon, does the Moon exist?
My answer is yes, also adding that I cannot stop looking at the Moon, as also if I turn back, I still interact with the Moon, gravitationally etc (also this is a looking at).
In the description of the very early Universe, prevailing physics stops at the dot of minimal dimensions, a subplanckian one, beyond which every supposition is meaningless, as all suppositions can be confuted by the opposite suppositions. So doing, the schopenhauerian jump from the physics step to the methaphysics one is not taken, as I take it here, on the contrary. Let’s not forget, indeed, that the methaphysical need of the scientist and of the human being, in general, is unsuppressable, so that the physicist himself, through relativity, as well as through quantum mechanics, delegates the observer to the description of the behaviour of things, like if things had not only their own independent essence (with no links with the spark which lights us up and makes us observe), but also had another one, double linked to the first one.
The physicist is who knows all without being known!