Gravitation by quantized longitudinal electrical waves

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Abstract: This is a simple, short and only theoretical (but non mathematical) consideration. It is regarded that neutrons and protons contain neutral couples of opposite electrical charges which are able to oscillate. In result, longitudinal electrical waves (LEW) appear. Under the prerequisite that the LEW are quantized (analogous to the photons) they can cause a mass attraction similar to the gravitation.
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If a couple of opposite electrical charges (Q+ and Q-) oscillates, then, in the result (that is in the sum), an alternating electrical field arises in the direction of the oscillation (that is in the direction of the connecting line between the oscillating charges) which can be described as a longitudinal electrical wave (LEW). When a LEW meets a (other) couple of (opposite electrical) charges, then this couple of charges also is put into oscillation. Here now, resonance can arise. As in the case of the electrostatic induction the receiving couple of charges will move in the direction from which the LEW comes. So, the LEW produce attraction.

Neutrons are electrically neutral. However, they can disintegrate (decay) into positive and negative charges (charged particles). So, one can imagine easily that neutrons always in principle consist of equally big positive and negative charges. The charges of the neutrons can also oscillate and therefore produce LEW. In turn the LEW produce attraction at other neutrons. This way attraction can arise between masses. Some remarks are necessary: 1. The oscillations of the charges of the neutrons are very small. The wavelength amounts to only a fraction of the spatial extension of a neutron and the frequency is at least as big as the de Broglie frequency of the neutron. In any case the LEW are much smaller than any electromagnetic wave (EMW) produced by the atoms, why they don't interact in the electromagnetic way of (and with) the atoms and therefore they are heavily provable. 2. The EMW are emitted by the atoms in packages, the photons [1,2,3,4]. The LEW also are emitted in an analogous way in (very much smaller) packages which are labelled as attractons [5,6] since they always cause attraction to the couples of charges of other neutrons.

If the LEW of the neutrons have to do something with the gravitation, then the protons must produce LEW, too. To this it is assumed that the protons also contain additional couples of opposite electrical charges which neutralize themselves electrically but which nevertheless can oscillate and which therefore produce LEW (or attractons). So, an atom is electrically neutral, however, its neutrons and protons still produce attractons.

The neutral couples of charges of the neutrons and protons don't have to consist of only one positive and one negative (that is an electron) elementary charge. It can be a very high multiple of that. A proton would therefore lack only one single negative elementary charge of its very many positive and negative elementary charges. This condition gives the proton stability, as it seems. To snatch another electron from the proton seems hardly possible. To snatch a positive elementary charge from the proton instead of the negative elementary charge would produce an anti-proton [7,8,9]. A very high "neutral basic charge" also could explain the strong interaction [10], which forms the protons of the atomic nucleus together, because the oscillations of such great couples of charges can produce LEW which are strong enough at sufficiently small distance between the protons to overcome the repulsion of only one elementary charge each. There then would be a connection between the very high "neutral basic charge" of the neutrons and protons and their very high mass (compared with that of the electrons). The neutrons would strengthen the attractive effect in the atomic nucleus.

The question about the number and strength of the attractons arises. Unfortunately, here it can only be conjectured. It is clear that an attracton must have a considerably stronger effect than the gravitation since the neutrons and protons don't absorb attractons incessantly. An attracton keeps its effect strength on its way (as a photon does). Only the number of the attractons decreases with the distance (with 1/r2) from the source. It is, naturally, at the creation of an attracton: the attracton is all the stronger, the longer the distance between the oscillating charges is (wavelength), the bigger the frequency is and the bigger the oscillating charges are. Unfortunately, the effect radius of an attracton is also unknown. However, it seems sensible to analyze the conditions in the atomic nucleus at the considerations for the size and strength of an attracton.

Energy is necessary for the creation of an attracton. The neutrons and protons take this energy from their surroundings. This can happen in different ways. Perhaps also through normal electromagnetic and thermal influences. Here it can be that very very short-wave EMW (photons) are created together with the creation of the attractons, and this short EMW are so small that they have no interaction with the atoms as a whole but they do interact with the couples of charges of the neutrons and protons. These extremely small photons don't cause any attraction, however, but they transfer the energy which is necessary for the creation of the attractons. Furthermore the energy input is also carried out directly via the absorption of attractons. This is based on the following idea: a mass produces very many attractons which mostly aren't absorbed. So, the space is filled up with attractons which evenly come from all directions. (This is particularly valid if one imagines an universe which is finite and closed into itself.) These attractons and the extremely small photons which are always coming from all directions can be part of the so-called dark energy [11,12]. There doesn't have to be a clear correlation between the absorption direction and the emitting direction of the attractons. A mass is therefore a specific place (simplified a point) from where attractons come from, and therefore this place differs from the general from all directions evenly coming flux of attractons.

Conclusion

It is here a purely theoretical idea. I make essentially only two acceptances: 1. Neutrons and protons contain couples of charges which can oscillate. 2. The LEW (attractons) being created by this charges are quantized (analogous to the photons). Both acceptances seem plausible and obvious. In the consequence a mass attraction arises which could be in connection with the gravitation.

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