Information, Thoughts and Dark Photons

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Abstract: Information can be sent with superluminal speed between entangled particles but new entanglement is created when luminal particles are very close one from another - it leads to conclusion that we cannot send information with superluminal speed because at first we must separate the entangled luminal particles. But when such separation is made then superluminal information is possible - it leads to the superluminal entanglement in quantum physics. Arrangements of the entangled Einstein-spacetime components in the physical matter and mental matter are different. For example, the unitary spins of the Einstein-spacetime components on a torus/electric-charge are perpendicular to surface of the torus whereas the unitary spins of the Einstein-spacetime components in the loops the thoughts consist of are tangent to the loops. It causes that the mental matter is flexible (the mental solitons are flexible) whereas the physical matter is rigid i.e. the bare particles are rigid. It is true that the superluminal dark photons responsible for quantum entanglement mimic the electromagnetic interactions but they cannot be detected directly i.e. they are dark. The dark matter is entangled with baryonic matter due to the superluminal dark photons carried by the superluminal entanglons the luminal Einstein-spacetime components consist of.

The Scale-Symmetric Theory (S-ST) follows from the succeeding phase transitions of the superluminal modified Higgs field which lead to five different size/mass scales. There is the superluminal Higgs-field scale (size about 10^{-64} m), superluminal quantum-entanglement scale (size about 10^{-45} m), luminal Planck scale (size about 10^{-35} m), quantum-physics scale (sizes about 10^{-18} to 10^{-13} m; most important is size about 10^{-15} m), and cosmological scale (size about 10^{24} m) [1].

The quantum-physics scale (~10^{-15} m) leads to the atom-like structure of baryons whereas the cosmological scale leads to the cosmic-structure/Protoworld which appeared in the luminal Einstein spacetime after the inflation but before the expansion of the Universe [1]. Evolution of the Protoworld leads to the baryonic matter, dark matter, dark energy and CMB [1].

Dark matter consists of the additional Einstein-spacetime components (they are the luminal neutrino-antineutrino pairs) entangled with the baryonic matter – the quantum entanglement is realized due to the superluminal binary systems of closed strings (the entanglons) the Einstein-spacetime components consist of [1]. The entanglons carry the unitary spin. They can rotate so they can carry rotational energies but they have only inertial mass (their gravitational mass is equal to zero).

On the other hand, the photons and gluons are the rotational energies of the luminal Einstein-spacetime components. In the strong fields, i.e. in fields which have internal helicity, the photons behave as gluons. For example, the strong fields produced by the internally left-handed baryons (antibaryons are right-handed) have left-handed internal helicity. The carriers of photons and gluons have the unitary spin the same as the entanglons.

We can see that the superluminal rotational energies of the entanglons are some analogs to the luminal photons and gluons so the superluminal rotational energies we can refer to as the superluminal dark photons. Whole quantum physics is based on the superluminal dark photons carried by the superluminal entanglons which are responsible for the quantum entanglement. We can see that in reality the properties of the superluminal dark photons are different from properties of the dark photons presented here [2]. But it is true that the superluminal dark photons mimic the electromagnetic interactions but they cannot be detected directly i.e. they are dark. The dark matter is entangled with baryonic matter due to the superluminal dark photons carried by the superluminal entanglons the Einstein-spacetime components consist of.

The dark energy was the field composed of the virtual electron-positron pairs and mass holes carrying negative mass. But today the dark energy is the field composed of additional non-entangled Einstein-spacetime components so such field is smooth [1].

It is obvious that information is carried by particles. But in symmetrical Einstein spacetime or symmetrical fields there can appear only particle-antiparticle pairs – it is the broken symmetry, i.e. there are created the internally left-handed particles and right-handed antiparticles as the pairs. It leads to conclusion that information is created as information-antiinformation pairs.

The Scale-Symmetric Theory shows that thoughts are the solitons composed of internally left-handed loops or right-handed loops. Such loops as well consist of the entangled Einstein-spacetime components [1]. New thoughts appear as thought-antithought pairs but only thoughts with right-handed internal helicity can interact with brains in our Universe. It follows from the fact that the thought-brain interaction induces electric currents in the nervous systems i.e. the thoughts interact with electrons, not nucleons. Contrary to the nucleons, the electrons have the left-handed internal helicity. The electric currents in our brains produce new thoughts.

Emphasize that arrangements of the entangled Einstein-spacetime components in the physical matter and mental matter are different. For example, the unitary spins of the Einstein-spacetime components on a torus/electric-charge are perpendicular to surface of the torus whereas the unitary spins of the Einstein-spacetime components in the loops the thoughts consist of are tangent to the loops. It causes that the mental matter is flexible (the mental solitons are flexible) whereas the physical matter is rigid i.e. the bare particles are rigid.

Information can be sent with superluminal speed between entangled particles but new entanglement is created when luminal particles are very close one from another – it leads to conclusion that we cannot send information with superluminal speed because at first we must separate the entangled luminal particles. But when such separation is made then superluminal information is possible – it leads to the superluminal entanglement in quantum physics.

References

[1] Sylwester Kornowski (23 February 2015). “The Scale-Symmetric Physics” http://vixra.org/abs/1203.0021 .

[2] Lotty Ackerman, Matthew R. Buckley, Sean M. Carroll, Marc Kamionkowski (submitted on 28 October 2008). “Dark Matter and Dark Radiation” arXiv:0810.5126 [hep-ph].