

In this article various aspects of the TGD inspired model of nerve pulses are discussed.

1. Nerve pulses relate closely to the communications from the cell membranes to the magnetic body (MB) of the system using dark, frequency modulated Josephson radiation inducing at MB a sequence of cyclotron resonances serving as control signals and eventually giving rise to nerve pulse patterns. This would generalize the "right brain signs-left brain talks" metaphor. Also the model of meV spikes appearing in preneural systems is discussed.
2. Quantum gravitation in the TGD sense a can assign the needed huge values of  $h_{eff}$  to the gravitational magnetic bodies. Quantum gravitational flux tubes assignable to the Sun, Earth, and perhaps also other planets and even the Moon could be highly relevant for the living cell and the brain.
3. The connection with microtubular level is considered and the transfer of charged particles between microtubules and very long gravitational flux tubes assignable to them allows to induce membrane oscillations and even nerve pulse.
4. Zero Energy Ontology (ZEO) and Negentropy Maximization Principle (NMP) could allow computers to become effectively living intelligent systems able to reach goals by an analog of trial and error process. This requires the failure of quantum statistical determinism. This is the case if the gravitational Compton time defining a lower bound for the gravitational quantum coherence time is longer than the clock period of the computer. MB would play a key role also in the case of living computers and dark Josephson radiation could serve as a communication tool. Superconducting computers have Josephson junctions as basic active elements and are more promising than transistor based computers.
5. Also the recent finding that the neuronal system is in a certain sense 11-dimensional is discussed in the TGD framework. The basic observation is that the 12-neutron system, with neurons assignable to the 12 vertices of icosahedron and defining 11-D simplex, could be involved. Icosahedron and tetrahedron appear also with the TGD based model of bioharmony serving also as a model of the genetic code.