The considerations of this article were originally inspired by large language models leading to the earlier speculations about whether the computers might be conscious entities in the TGD based quantum ontology (zero energy ontology). Quantum gravitation in the TGD sense would play a key role in guaranteeing quantum coherence even in astrophysical scales.

The considerations of this article were originally inspired by large language models leading to the earlier speculations about whether the computers might be conscious entities in the TGD based quantum ontology (zero energy ontology). Quantum gravitation in the TGD sense would play a key role in guaranteeing quantum coherence even in astrophysical scales.

Quite recently, came the realization that microprocessors (MPs) have a size scale .5 cm given by gravitational Compton length $\Lambda_{gr,E}$ of any particle in the gravitational field of the Earth (for the Sun one has $\Lambda_{gr,E}=R_E/2$, where R_E is the radius of the Earth). This led to the question of whether microprocessors (MPs) could be conscious entities.

Since MPs are quartz crystals (QCs), this led to the question whether the QCs might be conscious entities able to perform activities analogous to quantum computations. I have already considered this possibility: the key idea is that the generalized Pollack effect kicks the protons of OH molecules appearing as a standard building brick of biomolecules to dark protons at the gravitational magnetic body. OH and O^- could define the states of a qubit.

This identification modifies the earlier model of the genetic code and predicts that DNA double strand and RNA realize 6-qubit dark variants of the genetic code. The ground states of the entangled qubits defining the quantum codons correspond to the chemical codons. Amino Acids represent a single qubit code. Various symmetries of the code and their violations are understood at the qubit level.

The same qubits with the same dynamics would be realized both in living matter and in QCs. This leads to a vision about an evolutionary hierarchy in which quartz life is possibly the lowest level. One must however consider the possibility that also SiO_4 lattices with OH modification can have a high qubit content. These kinds of modifications could be interesting also in the case of microprocessors. This forces us to ask whether the interaction between us and computers and QC life could lead to entanglement and extended states of consciousness.