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## GEOPHYSICS OF ENTANGLED STATES OF THE COVID-19 PANDEMIC AND QUANTUM TELEPORTATION OF SARS COV-2 IN THE PLANET'S BIOGEOSPHERE

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**Abstract.** In their previous works, leading their history since 1988, the authors of this article have repeatedly conceptually shown and experimentally verified the results of research on the teleportation of information between macro objects. Early author's works were performed during the existence of the Russian Federation – as a country called the Union of Soviet Socialist Republics (USSR). Some of which were marked "Top Secret" - links further down the text. Since they were performed under the supervision of the relevant special services and further "Department of external relations of the Russian Academy of Sciences". The authors used numerous examples to demonstrate the possibility of teleportation of information in macro-systems, including ecosystem, biogeocenotic levels, and then tissue and organism levels. Successful experimental verifications occurred only in cases when all the principles and rules laid down in the theory of quantum information, applied to biological objects, were correctly combined. Namely, the preparation of cascades of entangled States was performed both on the mental and somatic levels. In full accordance with the principle of complementarity and taking into account the fact that the observer and the observed are actively connected by the sum of similarities. In addition, the role of the classical communication channel in this process was performed by carrier electromagnetic fields modulated by a useful signal. This signal represented a cast of the simulated experimental process. An example of a real COVID-19 pandemic is the verification of author's works in nature on a biogeocenotic scale. And certainly with anthropogenic – so to speak-participation.

**Keywords:** CoViD-19 pandemic, quantum teleportation, quantum non-locality, macroscopic entanglement, standing waves of Schumann resonances, Louis de Broglie waves, quantum theory of gravity, evolution.

## INTRODUCTION

In this article, the authors would like to consider the mechanisms of quantum teleportation at the mesoscopic level in macrosystems, using the example of quantum-wave mechanisms of the evolution of the CoViD-19 pandemic, in the form of the SARS-CoV-2 (2019-nCoV) coronavirus in 2020. In fact, it implies a certain information exchange in the planet's biogeosphere [1 – 16]. In their previous works on the study of quantum information teleportation between macroscopic objects and systems [17 – 61], the authors considered both the mechanisms of such interaction at the level of natural biogeocenoses [17 – 19], and some issues related to the study of processes based on new physical principles of action [50 – 61]. Early author's works [17 – 19] were performed during the existence of the Russian Federation – as a country called the Union of Soviet Socialist Republics (USSR). And were marked "Top Secret" [18, 19]. And in an obvious natural-like form, mechanisms based on new physical principles are shown in [53] exactly as it could occur naturally when biological objects interact with each other and the environment [7, 8, 9, 53, 65 – 68, 78] within the framework of biogeocenotic relationships in ecosystems. The authors would also like to emphasize that this article was written as an urgent and timely commentary on the work [87] and was created on its motives. It should also be noted that this work is not about the CoViD-19 pandemic, in the personification of the SARS-CoV-2 coronavirus. This work is about the mechanisms of possible quantum – wave nonlocal nature of the processes of interaction between material bodies and biological objects.

In fact, this article should be considered as a note on possible quantum-wave mechanisms of evolution, both in the general sense and in particular cases of pandemics and nosological forms. And within this note - on the example of the CoViD-19 pandemic of the severe acute respiratory syndrome coronavirus (SARS-CoV-2//2019-nCoV). The authors are not inclined to talk about the criteria of natural selection. These criteria are unknown to us. We can assume only one thing: the steps of natural selection seem to have some nano-, bio-, info-, cogno - (NBIC) format. Therefore, this article is legitimate only as a sum of assumptions based on the sum of previous publications [17 – 61: biogeocenotic and ecosystem levels [17 – 19], physical and technical aspects [20 – 47, 51 – 61], based on new physical principles of action, as well as some synthesis of all previous meanings [49 – 51].

## MAIN CONTENT

So: in some favorable electromagnetic environment, which is the natural geomagnetic background of the planet, there is a phenomenon of formation of standing waves with a frequency  $f = 7.83$  Hz, as well as their harmonics at frequencies ~14, 20, 26, 32 Hz between the earth's surface and the ionosphere. These are the so-called Schumann resonances [79 – 81], which are, apparently, nothing more than a natural "laboratory" for the preparation and preservation of entangled states where information is present in a non-local and collapsed form that makes up the entire possible completeness of SARS-CoV-2

coronavirus manifestations in groups of events based on the nosological form of CoViD-19 pandemic. The manifestation in a variety of clinical forms of the picture of coronavirus disease is the localization and deployment of the quantum picture on the "screen" of the world of classical objects. Just as the information that was originally recorded in a non-local, collapsed form on a solid-state drive is localized and deployed on a computer monitor. In parallel to the electromagnetic field of standing waves (Schumann resonances\* - fermion source), there is soft x-ray radiation, which is a carrier of Louis de Broglie waves [82 – 85], as a source of bosons, which are a component of the natural version of the flow of unlikely events, assuming a certain interaction of biological objects with the environment, a quantum leap of events of some small probability to events that are statistically more reliable [48, 49, 87].

The waves of Louis de Broglie can be with different individual information loads apparently. It is a complete set of CoViD-19 manifestations in this case. The SARS-CoV-2 (2019-nCoV) coronavirus appears to be a virus of the NBIC format generation. However, a non-local information pool will appear as a disease with a certain clinical picture and accept classic features only under certain conditions of interaction of a biological object with the surrounding environment. We don't know what the terms of this interaction are.

Therefore, the recommendations of a quarantine nature seem very logical in order to exclude the possible decoherence of undefined states, which, in fact, determine a certain modality, the timbre of these possible premorbid states - from the determinative adverb "almost". Decoherence will lead to the collapse of the wave function and the transition of the quantum system "biological object-external environment" to one of the eigenvalues of the probability density matrix for the flow of events. Some variants of physical and technical implementation of these natural mechanisms are considered in [50-61, 69]. A certain nature-like model based on new physical principles of action is shown by us in [53].

*\* Note: the Earth and its ionosphere is a giant spherical resonator, the cavity of which is filled with an electrically conducting medium. If the electromagnetic wave that has appeared in this environment after rounding the globe again coincides with its own phase (enters into resonance), then it can exist for a long time.*

*The basis, or main, for these resonances is a wave with a frequency of 7.83 Hz (cycles per second), which is a standing wave in the resonator between the ionosphere and the Earth. Since this rhythmic pattern lies within human brain ranges, various authors have suggested that this aspect of the earth's electromagnetic field may act as a kind of global mind... [https://skladchik.com/threads/Resonance-Schumann-Pulse-Earth-full-upgrade-improved-version.177416/].*

The authors believe that this article was written as an urgent and timely commentary on the work [88] and was created on its motives. It should also be noted that this work is not about the CoViD-19 pandemic, in the personification of the SARS-CoV-2 coronavirus, but

about the mechanisms of the possible quantum – wave nonlocal nature of natural selection processes on the example of current events.

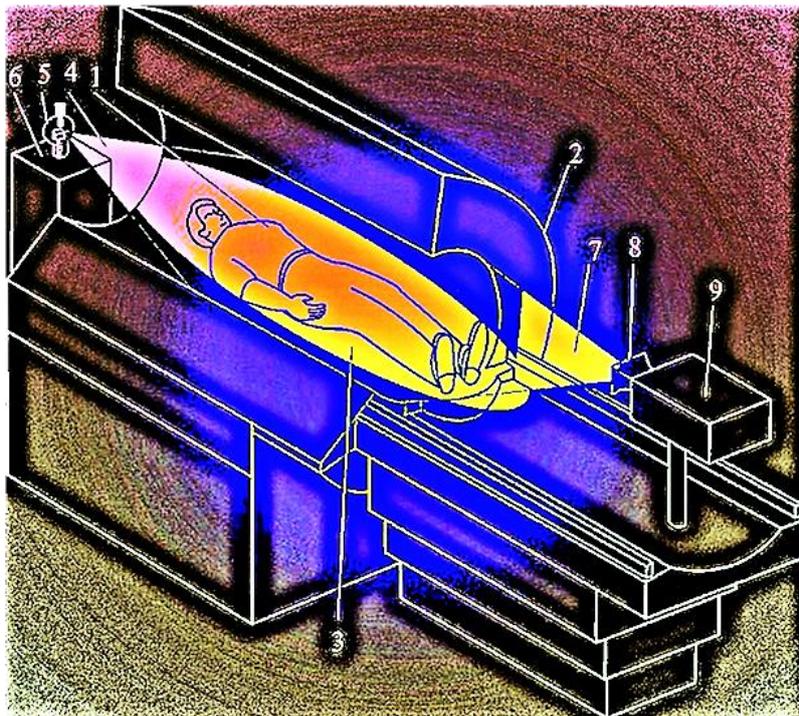
The authors are planning to publish a paper in the near future that shows the possibility of technical implementation of the described mechanisms on the example of the functioning of a nature-like laboratory model, based on research conducted earlier in [17 – 61].

#### A VARIANT OF IMPLEMENTING SOME THERAPEUTIC EFFECT - BASED ON THE MATERIALS [51 – 61]

The principle of organizing a certain therapeutic effect in the variant presented in Fig. 1 is implemented as follows. The subject (1) (in this case, the patient) is placed inside a device similar to a magnetic resonance imaging (MRI) machine (2). An installation like a tomograph is needed to create a favorable electromagnetic environment that simulates the natural geomagnetic background of the planet in the combination of Schumann resonances, Louis de Broglie waves (soft x-ray – in the range of 0.1 to  $10^{-10}$  m) and a broadband emitter of UHF or EHF waves modulated by the necessary information – to simulate events and processes specified by the operator. The impact is carried out in a forced mode, in the form of an alternating electromagnetic field with a frequency  $f = 7.83$  Hz, as well as their harmonics at frequencies ~14, 20, 26, 32 Hz around the object of impact (1). Inside the electromagnetic field of Schumann resonances, which are a "laboratory" for the preparation of entangled states, it is necessary to create a favorable environment for transmitting to the object of influence (1) the information component that is linked under the influence of Schumann resonance fields. The role of such a medium is played by soft x-ray radiation (4), which is a carrier of Louis de Broglie waves, as a source

of bosons, which are a component of the natural version of the flow of unlikely events in the forced mode, which assumes a statistical quantum leap of events of low probability to events that are statistically more reliable [86]. The x-ray emitter (5) is controlled by a modulator (6) operating in both continuous and pulsed modes. The stimulating effect (7) is carried out by means of an electromagnetic field radiated by a broadband emitter (8), whose operation is controlled by a modulator (9). Modulators (6) and (9) are synchronized for all wave parameters and are information entangled states. The modulated broadband emitter puts an information component into the configuration of the electromagnetic fields by its radiation. This information component was obtained using the previously described schemes [52-55] and principles [17-61]. As a result, there is an increment of some mass of information in the original system presented in the figure. This system simulates the phenomenon of information accretion in laboratory conditions [88, 89].

Based on the above, it seems possible that: "gravity is a product of "quantum entanglement", and not "space curvature" [90 – 92]. "Therefore, it is possible to adequately describe macroscopic objects and gravitational effects typical of General relativity using quantum mechanical tools... And ... quantum entanglement is a condition of energy density, and this condition should satisfy the future theory of quantum gravity. Thus, entanglement and gravity are dually related: what appears as a quantum entanglement in a small-dimensional space becomes a gravitational interaction in a larger-dimensional space. If this interpretation is correct, then a significant step towards the creation of a quantum theory of gravity has been made" [92].



*Figure 1. Variant of implementing a certain therapeutic effect based on new physical principles of action*

The authors plan to consider the diffraction problems, conceptual and technological details, as well as the interdisciplinary convergence of mechanisms for implementing the above-described technotron model in upcoming publications.

### CONCLUSION

In this article, the authors considered some ontological possibilities of teleportation of quantum information at the biogeospheric level on the example of the CoViD-19 pandemic. The scientific novelty of the work, according to the authors, is that for the first time a hypothetical possibility of forming stable cascades of entangled quantum states at the macro level and, possibly, on the basis of mechanisms equivalent to the phenomenon of quantum gravity is considered. Quantum gravity seems to be an adequate description of macroscopic objects and gravitational effects typical of General relativity using quantum mechanical tools. Quantum entanglement is a condition of energy density, and, therefore, a kind of "preservative" of prepared entangled states, which allows these states not to undergo random decoherence when interacting with the external environment. The phenomenon of decoherence occurs only when necessary and sufficient prerequisites occur, which are contained in certain conditions and under certain circumstances. It is then that Louis de Broglie waves modulated by certain information of natural or artificial geophysical origin can collapse to one of the eigenvalues of the information matrix. And one of these values is the activation of the clinical picture of virology in a certain sample of biological objects. This information matrix is "preserved" - as cascades of entangled states - in the depths of standing waves of Schumann resonances with the highest energy density. This is how wave functions become real virulent particles of the SARS-CoV-2//2019-nCoV reduced to corpuscles of one of the diagonal values of the information matrix in the acts of cascades of certain decoherences. Before the corresponding act of decoherence, the virulence of quantum viral particles is only a probability that is in full accordance with the quantum-wave dualism of the hypothetical process described. Thus, entanglement and gravity are dually related: what appears as a quantum entanglement in a small-dimensional space becomes a gravitational interaction in a larger-dimensional space. Thus, SARS-CoV viruses-2//2019-nCoV are activated as virulent particles only when biological objects interact with the environment in some way. What and the nature of this interaction is, we cannot say for sure. Which determines the biogeospheric and ecosystem aspects of these meanings in the NBIC convergent nature of this scientific work. Some features of the impact, interaction and aftereffect of various types of virus on the immune system are discussed in: [94]: «The outbreak of SARS-CoV-2 in Wuhan, China caused a pandemic of COVID-19. However, it remains enigmatic why the mortality rate is variable among countries. Here we show that at least three types of SARS-CoV-2 virus, type S, K, and G. have spread globally and formed complex infectious trends in terms of transmissibility and virulence. Type K establishes herd immunity and protects against the

most virulent type G. Immunity to type S is involved in aggravating type G infections through antibody-dependent enhancement (ADE)». This is confirmed indirectly by the mechanisms and features of the evolutionary dynamics of the coronavirus described above in the arena of current geophysical and biophysical events.

### GENERALIZATION

The term quantum field was formed in physics as a synthesis of representations of physical fields like probability fields and the Faraday — Maxwell electromagnetic field, described in quantum mechanics by wave functions. It is worth noting that physical fields were introduced when it became necessary to completely abandon the principle of instantaneous action of forces, which existed in Newton's mechanics. It was introduced that the space between interacting particles (for example, two electric charges) is completely filled with a field. It is the carrier of the interaction of particles (from one to another), and the transfer occurs at a certain speed. When transmitting an electromagnetic field, all actions are sent from one charged particle to another moving at the speed of light and serves as a carrier for the electromagnetic interaction between the particles. Taking into account quantum fields, there is a process of transmitting the interaction, it comes in quantum portions, where the latter are already elementary particles. They have fixed characteristics of mass, charge, spin, etc. Similarly, on the one hand, interacting particles have common quantized characteristics of mass, charge, and spin, and on the other hand, the interaction between them is transmitted by a quantum field of a certain type with quantized characteristics. Quantum fields include the known physical interactions discussed below in terms of their possible participation in the teleportation of quantum information at the macro level and participation in the creation of space-time itself [95 – 97].

#### 1. Strong interactions (microscopic level):

Quantum theory for the strong interaction also consists in the increment of the mass of information teleported by flows (cascades) of entangled baryons and mesons constructed from quarks. They interact by exchanging gluons that have mass 0 and spin 1.

#### 2. Electromagnetic interactions (mesoscopic level):

Electromagnetic interaction refers to fundamental interactions. And stands in line with the gravitational, weak and strong interactions. The world that surrounds us is a manifestation of electromagnetic interaction. A large number of forces in mechanics have an electromagnetic nature (forces of tension, elasticity, etc.). Charged particles are sources of electromagnetic fields. Particles that do not have a charge (neutral) interact with such a field due to a complex internal structure or quantum effects. This distinguishes the electromagnetic field from the gravitational field, which acts on all particles. But due to the electromagnetic interaction, there are atoms and molecules, because they are "connected" by electromagnetic forces. Therefore, the electromagnetic interaction is the basis of all existing phenomena on

Earth. The chemical forces that unite molecules from atoms are also electromagnetic in nature. The strength of the electromagnetic interaction is much greater than the gravitational one. What distinguishes the electromagnetic from the weak and strong interaction is that its radius of action is infinite. The ability of the electromagnetic interaction to manifest at infinity is explained by the lack of mass in the photon, which is the carrier of this interaction. However, the mass of a moving photon is determined using Einstein's formula, which establishes the equivalence of mass  $m$  and energy  $E$ , i.e.  $E = mc^2$ .

The electromagnetic interaction retains its parity with respect to space and charge. This is another difference between the electromagnetic interaction and the weak interaction. And the electromagnetic interaction does not preserve the isotopic spin – this is the difference from the strong interaction.

- From the point of view of classical electrodynamics: interference-results in an interference pattern (hologram). That is, to a quasi-classical object representing a holographic superposition of probable States in the Schumann resonance field [79 – 81], where the sum of certain conditions creates space-time [95 – 97].

- From the point of view of quantum electrodynamics: depending on the variants of interaction of a biological object with Louis de Broglie waves [83-86], which carry full information about CoViD-19. All this is superimposed on the matrix of cascades of entangled States located in the field of Schumann resonances. Which can lead to the collapse of the wave function (covid-19 pandemic) to one of the eigenvalues (SARS – CoV-2). That is, from the point of view of a hypothetical observer, the interaction of his gaze with this set of holograms occurs – as if at a different angle of incidence of the reference wave on the carrier of these contents. What causes the manifestation of the disease – in its different variations and forms of manifestation of the clinical picture, or does not cause it.

### 3. Weak interactions (mesoscopic level):

Quantum theory for the weak interaction is analogous to quantum electrodynamics. In physics, the beta decay of elementary particles (for example, neutrons) and nuclei, where the birth of positron-neutrino or electron-neutrino (anti-neutrino) pairs, the capture of muons or electrons by nuclei, and the scattering of neutrinos located on protons, electrons, or in the nuclei of atoms (there are similar processes of weak electron scattering), are referred to as weak processes. Given the quantum field theory, the elementary act of weak interaction was the process of the birth of a nucleon (neutron or proton), as well as an electron (Tau meson, muon) of a heavy neutral ( $Z_0$ ), charged ( $W_+$ ,  $W_-$ ) and a boson, which instantly decays into a pair of particles. The heavy intermediate boson serves as a similar transmission link as it is in the electromagnetic process of the virtual gamma quantum or Louis de Broglie waves (x-ray radiation of the geophysical background). In contrast to the latter, bosons also have a huge mass, and the interaction radius, which turns out to be quite small, is about 10-17

centimeters. This is the radius of the weak interaction. At the same time, the fact that the physical picture of the weak and electromagnetic interactions is similar, helped physicists create a General theory where the two interactions are combined into a single electroweak, at fairly high particle energies. There is a difference between them during the transition from large to small energies, but in the sphere of high energies it actually disappears.

### 4. Gravitational interactions (macroscopic level):

From the point of view of the topology of the Poincare-Perelman theorem [99-102]: the object (the wave of the CoViD-19 pandemic) acquires in its nested state the dimensionality that is inherent in the medium (space) of the manifestation of the now SARS – CoV-2 virus.

### 5. Unified field theory:

- Heuristic meaning: the process of incrementing the mass of information on an object (accretion), by attracting congruent physical sense modes from the surrounding space, by the mechanism of the «strange attractor»

- When accretion of information from the background of a Louis de Broglie plasma to a material medium that has its own magnetic field, the accretion mechanisms are determined by the magnetohydrodynamic interaction of this background with the magnetic field of Schumann resonances.

- The interaction carrier is a heavy intermediate boson of the virtual gamma quantum. Or the waves of Louis de Broglie – a natural soft x-ray of the geophysical background. The laboratory and storage of information in cascades of entangled States are Schumann resonances.

- Louis de Broglie waves are a weak component of the process (information and energy components; a catalyst for decoherence directions)

- Schumann resonances – electromagnetic component (holographic probability matrix).

- The quark composition of the two previous components determines the strong component of the process (the microscopic component of the material environment is the source of accretion of matter at the meso-and macro-levels).

Quantum gravity and in a General sense, gravity-in a heuristic sense-is the interaction of cascades of entangled quantum States of all the listed components of certain information flows at the macro level-in their system combination and interaction (information matrix of probabilities).

Quasiparticles of the electromagnetic field, described as quanta of collective excitations in multiparticle systems (for example, in condensed media), can also carry spin and be classified as bosons and fermions. In particular, bosons are phonons ("sound quanta"), magnons (quanta of spin waves in magnets), and rotons (excitations in superfluid helium-4).

This is the system combination and interaction of cascades of entangled States in the information matrix of probabilities that is the reason for the appearance of the space-time continuum in its classical form [95 – 97].

## 6. Hierarchy and synarchy of interactions:

The microcosm (Suprimir) strong interactions is of the macrocosm (Infraero) gravitational interactions source material. And the macrocosm of gravitational interactions is a source of information for the micro-supramir-through weak interactions. In our case, these are Louis de Broglie waves. Mesomir is a link between information and matter – through the energy of the electromagnetic field that entangles all processes in a non – local continuum [70 – 77]. In our case, these are Schumann resonances. Which, under certain conditions, manifests its local (diagonal) variants of event realization, based on its own probability matrix. Variants of realization of certain events depend on certain conditions of interaction of information flows of Louis de Broglie waves with the hierarchy of cascades of entangled States in the field of Schumann resonances. When an object interacts with the environment in the form of the components listed above.

Some mathematical apparatus of the processes described above is currently presented in the necessary and sufficient form in [102].

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## PHYSICAL FOUNDATIONS OF UNIFIED KNOWLEDGE

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**Abstract.** A physical model of the Universe is proposed, which is based on the idea of the world as two interconnected branches of a single evolutionary process. One branch is the creation of a postulated primary particles - forms and their cells of a multilevel oscillating structure - a Unified set of forms (USF), which, in the model, is space; second, the formation of material realities by combining the same forms in a structured space. The interaction of the same particles representing “matter” and “space” gives a strict coordination of their development at all scale levels, from elementary particles, atoms, up to Homo sapiens.

USF is the "constructor" of all material realities, and is responsible for their interactions - the forces that arise between them. So, gravitational forces are the stresses in the USF caused by its deformation (“space curvature”) by material objects. This explains its long-range and high-speed performance, which was clearly shown by experiments on elastic models.

USF also gives wave properties to all particles moving along its corridors, which determine the transmission properties of space. At this stage of knowledge, USF provides a clear physical explanation for the de Broglie hypothesis, the Heisenberg uncertainty principle, and some other physical phenomena. The constant interaction and mutual development of the USF and the material world give the direction of the evolution process of the Universe.

**Keywords:** particles – forms, spin, the Unified Set of Forms (USF), structuring of space; hexagonal oscillation cells; structuring of matter, corridors of USF, wave-particle duality

“We come to a strange conclusion: now it begins to seem to us that space plays a primary role; matter must be obtained from space, so to speak, at the next stage” [1].

### I. Introduction.

There is currently no comprehensive model covering the entire universe: particles, interactions and space, dark matter and energy. The Standard Model, Special relativity (SR) and General relativity (GR), strings theory, preons, E8, structural vacuum, and

others do not give a unified picture of the material world. It is probably impossible to describe the world in parts. None of the models for the development of the structures of the material world will be successful if it does not take into account the existence of a space with physical properties. Therefore, the construction of quantum mechanics is becoming more complex and has long lost any physical interpretation. On the other hand, for several centuries of the existence of modern science, it is intuitively felt that the Universe is a unified