Generation of clean energy by applying parametric resonance to

quantum nonlocality clocking

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ABSTRACT

A successful resolution of the energy crisis awaits a radical scientific breakthrough to reveal a new source and method for generation of clean abundant energy. A novel approach to this problem is presented. The obtained energy originates neither from Sun nor matter transmutations. Instead, it comes from the surmised holographic mechanism of the Universe that, most notably, produces the phenomenon of quantum nonlocality. Actualy, the presented mechanism provides the only available explanation to otherwise inconceivable nonsiganling far-off interactions. The applied Parametric Resonance In Motion Entanglement (PRIME) extracts energy through the socalled hot-clocking effect at triggering frequency of about 10¹¹ Hz. The significance of the considered construction is that it reveals the biochemical functionality of muscles in living beings combining control and actuation . Hence, the suggested opportunity for energy generation has to be effectual and, quite likely, unique. Figuratively speaking, the PRIME energy is extracted from the quantum computer of the nonlocal Universe through an "USB port" - a multiplex channel for information and energy.

Keywords: novel source of energy, quantum nonlocality, clean energy, parametric resonance, artificial muscle

1 INTRODUCTION

It becomes more and more clear that adjustments to the already thorough investigated commonplace technologies have limited capabilities to withstand the perils of the impending shortage of energy: "Radical innovation, not incremental improvement is needed to make clean efficient energy that can compete, unsubsidized, in big markets" [1].

The main determinant factor of the process of energy generation - taking energy of one sort and giving out energy of another sort - is the density of energy flow, as has been analyzed in [2]. This factor is what basically limits the effectiveness of common renewable energies. The same low density problem arises in transformation of chemical energy into mechanical energy for biological muscles. Correspondingly, according to [2] this supposedly precludes usage of artificial muscle constructions for largescale production systems. But how the supply of large amounts of energy to the Life on Earth is organized if it cannot rely on biomass? The point is that as soon as the required flow of energy for biological objects cannot be maintained through a 2D of chemistry bottleneck; it should come from a different source through a 3D. Our work upholds the idea that using artificial muscle systems for large-scale production of energy can be effective as long as the required 3D source of energy is identified.

Seemingly, one may think that our suggestion relates to the energy associated with the so-called "zero-energy" of quantum vacuum [3]. But, our proposal has nothing to do with it. The new source of energy that we consider comes from a distinct side completely different from the feeble strains of the "zero- energy" - the clocking mechanism that drives the physical world. The most vivid manifestation of the robust activities of this clocking mechanism is quantum nonlocality [4,5,6]. It should be explicitly, strongly, and unequivocally emphasized that the suggested approach does not violate the venerable law of conservation of energy. What is proposed is that energy can be supposedly extracted from the clocking mechanism of nonlocality and then concentrated by the mode of the parametric resonance. In contrast to the lofty, perhaps questionable, ideas of fundamental physics, the parametric resonance is a regular clearly understood engineering instrument.

2 EMPLOYING THE NONLOCALITY

The concept of nonlocality is largely confusing. How faraway objects can instantaneously influence one another is beyond the conventional paradigm. The nonlocality undermines the very essence of our perception of the nature of things. In the opinion of A. Einstein, nonlocality of the physical world is a flagrant absurd - if quantum entanglement "is correct, it signifies the end of physics as a science" [7]. He asserted that quantum mechanics – as soon as it predicts such an effect – is incomplete. Thus, *a priori* counter-arguments against the surmised potentials of nonlocality based on the paradigm of the current worldview are unfair and cannot be logically justifiable.

Any future scientific construction "put forward as a complete quantum theory" must tell us how "some spatially separated systems exhibit nonlocal correlations" [8]. The situation with the idea of nonlocality is, however, much more dramatic. As epitomized in [8]: "no story in space-time can tell us how nonlocal correlations happen; hence, nonlocal quantum correlations seem to emerge, somehow, from outside space-time." Extraordinarily, the nonlocal

correlations occur in a nonsignaling fashion: "nonlocal correlations happen without one system influencing the other" [8]. Thus, the world is not created the way traditional physics contemplates.

In our concept [9], all the strangeness of quantum mechanics is elucidated using interactive holography. The description of quantum behavior incorporates "something mysterious that oscillates". In conjunction with the wave-like properties, the holographic environment creates a holistic organization of quantum systems. The main feature of nonlocality is a result of processing in 2D slices. Conventional view on the material world as a collection of interacting particles is just a useful approximation.

Furthermore, the developed construction displays a surprising fact discovered by John Webb et al. [10] of angular variations of the fine structure constant $\alpha = e^2/\hbar c$. In our model, the Universe has an inherent dipole anisotropy due to the eccentric placement of the Solar system with respect to the reference holographic beam [11] This eccentricity factor imposes an overall dipole structuring also on basically all other types of astrophysical observations; most dramatically, this comes into view for the "axis-of-evil" in the CMB (see [12]) So, the Universe is inherently nonlocal, and although sphere-shaped, appears asymmetric (Fig.1).



Fig. 1

Two basic effects corroborating the scheme of interactive holography for quantum mechanics

The support of holographic processing is the condition *sine qua non* for the organization of Life. The difference between the dead and living matter comes through the differences in the behavior of small particles and macromolecules, which are determined by the amount of the feedback from the holographic mechanism. Small particles under immediate holographic responses exhibit quantum behavior. The macromolecule feedbacks are richer enabling access and reactions from the past memory (see the amazing report on "cosmic habituation" in [13]).

3 PARAMETRIC AMPLIFICATION

The proposed method to obtain energy exploits the surmised effect of Parametric Resonance In Motion Entanglement (PRIME)[4,5]. Energy is extracted from the fundamental mechanism driving the nonlocal holographic Universe by intensifying pushes from the clock pulses - the so-called hot-clocking effect [14]. Parametric resonance is a generic process using appropriate structural oscillations.

Recent paper [15] (Fig. 2) has stirred up a lot excitement regarding the effect of "energy teleportation".



Fig. 2 Scheme of "energy teleportation" by Masahiro Hotta

The potentialities of "energy teleportation" are actually demonstrated in the entanglement of motion patterns [16]. Aside from certain previous vague ideas [17], this current suggestion (Fig 3) can be viewed as a natural extention of the effect of "energy teleportaion"..



Fig. 3 Generation of energy by a PRIME scheme (Parametric Resonance In Motion Entanglement)

The amplification of energy is expected as a consequence of parametric resonance at the global clocking frequency of 10^{11} Hz that permeats the whole Universe. This permeation provides clocking facilities for all living beings; thus, it can be responsible for triggering some mysterious biological outcomes at this frequency [18].

4 BIOLOGICAL ASPECTS

The practicality of the suggested approach to energy generation gets a decisive support from various scientific outlooks. Primarily, the suggested apparatus that is able to create purposeful motions is seen as "artificial muscle". Life is a metastable state of matter that needs a continuous inflow of energy to remain in this condition [19]. According to [20], feeding and metabolism furnish "negative entropy", not energy. In other words, having a meal is "maintenance" rather than "refueling". So, muscles should obtain energy for their operations beyond food intake. The considered model [21] portrays living beings as an integrated system combining information control and mechanical actuation. Actually, biochemical motilities, along with the workings of quantum mechanics, are driven by the above-discussed impacts of interactive holography.

"How does energy drives Life?", which "is one of the most basic problems of biology and, at present, there is no answer to it" [19]. It was shown that contraction of a muscle is the interaction of actomyosin – a complex formed of two proteins, actin and myosin – with ATP and ions. Myosin is responsible for the elementary act of contraction, so the question is how the energy from a phosphate bond \sim P of ATP moves myosin. The work [19] stresses two questions: (1) what is the source of energy that incites ATP? and (2) how does this energy, in a form of a phosphate bond \sim P or whatever, exercise a very particular precision actions of compaction of protomyosins?

Both points are directly addressed within the suggested scheme associating extraction of energy through application of parametric resonance to nonlocality clocking. First, this scheme presents a continuous source of plain incoming energy; second, the distributed parametric resonance impetuses allows for purposive micromanipulations of the molecular components.

The amount of chemical energy obtained with the food does not seem sufficient for the work the organisms perform. Most pronouncedly this controversy pops up for insects. For example, some beetles would need daily intake of food twice their own mass. The article [22] set forth an observation that "in studies of insect energetics the completed budget rarely balances"; this concern is not conclusively resolved in a number of subsequent publications.

Interesting observations are presented in [23,24]. Mysteriously, the force generated by the muscular motors of running, swimming, and flying animals conforms to a universal value dependent only on muscle mass. The force output of the muscles of runners, swimmers and fliers with surprisingly little variation is about 60 newtons per kilogram. In our concept, this remarkable result on the universal value of force (indeed exactly "force", not "energy"!) created by all types of biological muscles gets a natural explanation: the force delivered by muscles is not due to varying biochemical circumstances, but is extracted from the same mechanism underlying the infrastructure of the physical world.

5 BUILDING A MECHANICAL ENGINE

The parametric amplification of motion patterns in entangled objects could be exploited in two ways: (1) explicitly - through direct application of the triggering 10^{11} Hz frequency, or (2) implicitly - by autoparametric resonance where entangled oscillations could be amplified through polymer structures having an appropriate spectrum of conformational changes. Apart from differences in the implementation details, an essential distinction of the two ways of operation lies in the following. The direct parametric stimulation is a physical quantum process. The autoparametric stimulation involves macromolecules and, hence changes the contents of Universe's memory in a considerably greater scale, like a biological process. Thus, a construction of "artificial muscles" could undergo a senescence process (in a software sense) similarly to "wear out" in living systems. This hypothetical possibility could be taken care of by an appropriate maintenance scheduling.

A rough scheme for obtaining mechanical motion from the PRIME effect is outlined in Fig. 4.



Fig. 4 An outline for an engine using PRIME energy

The presented scheme contains a piston imposed in a certain framework, say, a kind of a cylinder. The piston is attached to polymer strands imitating muscle tissue. These polymer strands are under some parametric resonance influences either directly from a $\sim 10^{11}$ Hz irradiation or indirectly from autoparametric resonance activities of the collection of strands. This arrangement is targeted on alternate coordinated contractions and relaxations of the "muscle" strands to produce reciprocating motion. Then, the engine is connected to a regular crankshaft.

Envisioning the muscle mimicking process literately, one "Horse Power" can be packed in about 1 m³. For the sake of simplification let us equate $1HP \approx \frac{3}{4}$ KW ~ 1 KW and assume that all the auxiliary equipments fit in the same volume as well. So, an aggregate in a volume of 10m x 10m x 10m is evaluated to be able to generate ~ 1 MW of power.

The presented contraption could provide clean PRIME energy in quantities comparable to those produced by all the living organisms on Earth. Apparently, this can match the total demand of the world community. This energy is available everyewhere, so PRIME aggregates can be freely placed in the proximity to consumers supplying energy in a distributed fashion without long electrical transmission lines and huge power stations.

6 CONCLUSION

The presented approach exposes a new immense source of energy that so far has not been contemplated. This may lead to a radical resolution of the energy crisis. Presumbaly, the given opportunity is unique.

"All of today's experimental evidence points to the conclusion that nature is nonlocal. This has implications both for our worldview and for future technologies" [8]. Our holographic model of the Universe provides the only known explanation to the mechanism of nonlocality, and thus could constitute the basis for such developments.

The practicality of the contrieved construction is backed up by two principal circumstances; first - parametric resonance is a robust universal technique and, second extracting energy from the infrastructure underlying the physical world is an indispensable procedure for actuation of all biochemical activities.

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