Volume 21 Issue 35
Originally issued as A5



Global Journal of Science Frontier Research: a Physics and Space Science
Volume 21 Issue 5 Version 1.0 Year 2021
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals
Online ISSN: 2249-4626 & Print ISSN: 0975-5896

What Makes the Quantum Behavior of Macrosystems Possible?

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Editorial- In the journal Physics Today of July 2021, on p. 16, an article of Rachel Berkovitz was published "Macroscopic Systems Can Be Controllably Entangled and Limitlessly Measured" [1]. Based on these measurements, she claims: "quantum mechanic is not limited to the atomic scale. In principle, objects of all sizes should behave according to quantum mechanics", but she does not explains why. In the present article, I am going to explain why objects of all sizes should behave according to quantum mechanics. In my article: "On the Universality of the Quantum Approach" [2], published in 2018, I claim: "At least now when we build quantum computers, we should acknowledge the fact that quantum mechanics is applicable to more than the microworld."

GJSFR-A Classification: *FOR Code: 020699*



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What Makes the Quantum Behavior of Macrosystems Possible?

Prof. Maria Kuman

Editorial

In the journal Physics Today of July 2021, on p. 16, an article of Rachel Berkovitz was published "Macroscopic Systems Can Be Controllably Entangled and Limitlessly Measured" [1]. Based on these measurements, she claims: "quantum mechanic is not limited to the atomic scale. In principle, objects of all sizes should behave according to quantum mechanics", but she does not explains why. In the present article, I am going to explain why objects of all sizes should behave according to quantum mechanics. In my article: "On the Universality of the Quantum Approach" [2], published in 2018, I claim: "At least now when we build quantum computers, we should acknowledge the fact that quantum mechanics is applicable to more than the microworld."

In my book "Glimpse to Future Science and Cosmology", published in 2017 [3], and in my article [4], published in February 2019, I am explaining how the Universe was created. Black Holes of anti-matter, with hyperboloid shape, created (and create) the material world and the nonlinear electromagnetic field (NEMF) that separated the matter from the anti-matter got imprinted on all material creations. This makes all material creations a material body and NEMF, which automatically explains the dualism wave – particle, i.e. why the particles are material particles and waves at the same time. If everything material is a material body and NEMF, this makes quantum mechanics applicable to the whole material world [2]. The predicted by me hyperboloid shape of the Black Holes [3], [4] was later confirmed by a photo of a Black Hole published on April 10, 2019.

A photo in polarized light published in 2021 confirmed my prediction of the spinning of Black Holes [3], [4]. Now, different research groups report that they have observed macroscopic quantum effects that can be described only with quantum physics. In quantum physics, excited atom can emit two photons within nanoseconds. Such twin photons have opposite polarizations and they are entangled – they behave like two balls connected by a spring. The pair vibrates in perfect synchrony even when separated at large distances (one might be in New York, the other in London). Now, it was found that micron-size aluminum membranes (with trillions of atoms) could have the same entangled behavior when set into vibrational motion by microwaves and visible light [1].

Dr. Kotler and collaborators worked at NIST in Boulder, Colorado, with two 10 μm-long aluminum membranes connected through a resonance cavity [1]. The two membranes were made capacitors through connection to microwave-frequency AC circuits. Then two microwave pulses with different, but similar, frequencies droved the two membranes into entangled motion. When another microwave pulse was imposed on the oscillating membranes, the reflected Doppler-shifted signal carried information about the position and momentum of both membranes. Entanglement of the membranes couldn't be observed after a single microwave pulse, but after thousands of repetitions the entanglement of the membranes was certainly there. The authors don't offer any explanation [1].

Mercier de Lepinay and her colleagues at Aalto University in Finland worked with aluminum membranes of the same kind and found that when the two membranes are entangled and vibrate in the same way, they have opposite phases [1]. The entanglement made the momenta of both membranes to change in the same way, when external force was applied to them. They found that the uncertainty of Heidelberg (that we cannot have the coordinates and the moments measured at the same time) cancel for entangled systems. The authors do not offer any explanation [1].

Here is my explanation. In my article: "Uncertainty Principle? Are Quantum Events Influenced by Our Conscious or Subconscious?... and Why?" [5], I presented a proof that we are a material body and NEMF, but all living beings (plants, animals, and humans) have a second NEMF, which is their emotional Spirit seen as aura. This second NEMF is magnetically attached to the NEMF of the material body. And of course when we are trying to measure an elementary particle with NEMF, these two NEMFs would influence the NEMF of the particle, and the result would be uncertain or with probability.

1/ The Russian scientist Shkatov found that our aura spins clockwise at positive emotions. Since nonlinear physics teaches that vortices spin clockwise and suck energy in, obviously at positive emotions our aura (Spirit), which is NEMF, spins clockwise and sucks

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NEMF energy in. This explains our feeling "in high Spirit" when we experience positive emotions [5].

2/ Shkatov also found that our aura spins counterclockwise at negative emotions. Since nonlinear physics teaches that anti-vortices spin counterclockwise and emit energy, obviously at negative emotions our aura's NEMF spins counterclockwise and emits NEMF energy. This explains our feeling "in low Spirit" when experiencing negative emotions [5].

However, this means that there is a reservoir of NEMF energy available, from which our aura (Spirit) breathes NEMF energy in at positive emotions and breathes NEMF energy out at negative emotions. This reservoir of NEMF energy is the Space Matrix, from which everything material was created. Thus, while our material body gets its energy from food and breathing air in and out, our aura, which is our emotional Spirit (NEMF), at positive emotions breathes NEMF energy in from the Space Matrix (NEMF) and at negative emotions breathes NEMF energy out to the Space Matrix (NEMF).

Now, let's go back to the entanglement of macrosystems, in which the presence of the Space Matrix NEMF will play essential role. It is a known fact since 200 years ago that 2 clocks placed on the same piece of wood become synchronized. It is also known that when husband and wife sleep together, their rhythms of sleeping become synchronized [6]. Both events are called entrainment in nonlinear physics [6]. As the entrainment of the sleeping patterns of husband and wife and as the two clocks on the same wooden plate, the two aluminum membranes become synchronized. The authors call it entanglement, but it is actually entrainment, which take place because everything material is a material body and NEMF and the Space Matrix between them is NEMF.

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