

Why are there no radio waves in space.

Alexander I.Dubinyansky and Pavel Churlyayev.

Abstract. A description of the shape and size of photons is given. Including radio photons.

Preface.

We want to remind American scientists and scientific administration that every year science ignores our Elastic Universe Theory, and the US science budget loses \$10 billion. And if you sum up for all countries, then the loss will be \$100 billion. So much will be wasted on useless colliders, space telescopes and rocket flights in search of extraterrestrial microbes from which life is supposedly born. Mankind has not been given so many decades to mindlessly waste natural resources. And to give the scientific budget for selfish purposes and to be torn to pieces by pseudo-scientific crooks. It's time to start looking for the true structure of the universe. In particular, the structure of material particles. It is also time to stop clinging to religious dogmas and dragging serious sciences to them by the ears.

18 years have passed since our discoveries. That's just for the US \$180 billion of science budget is lost. And for the whole world \$1.8 trillion dollars. So much has been lost by mankind through the fault of mainly Russian science. But we have been on the academia.edu website since 2017. Already 4 years wasted.

Humanity with great difficulty gets out of the darkness of ignorance. The history of physics is complex. And it so happened that it is based on several basic postulates and theories, which, upon careful analysis, turn out to be false. In particular, with the help of amateur journalists and superficial scientists, false theories about black holes, antimatter, wormholes in space, the "standard model", the Higgs boson, entangled particles, and others have been established. False are also assumptions about structureless elementary particles, in which it is not clear where the spin, magnetic field and electric charge come from. Accordingly, all Nobel Prizes on these issues are also false. Accordingly, the real, well-deserved scientific discoveries of those times were pushed aside from the award. In particular, the Nobel Committee has not yet paid attention to the experiments of Lina Howe. Rewarding false black hole theories. Although she turned out to have an attentive Motherland, which rewarded her enough with national scientific awards.

The significance of scientific dissertations and degrees is also inflated by journalists. Which usually do not carry any scientific value. If a worker or an athlete has a professional rank, then this correlates with reality. But all sorts of dissertations and degrees have no connection with scientific reality and reflect only the influence of these people in the scientific world. their adaptive abilities. And this influence is achieved not at all by scientific developments and discoveries. And it does not serve the development of science at all. As a rule, it serves the selfish purposes of material enrichment.

So after all, not only do they reward themselves, they also block the access of real scientists to all scientific journals. Expel and ban on scientific sites. And they do not even give access to paid magazines under fictitious pretexts! What did the authors face in Russia.

As everyone knows, where there is money, there begins a fight without rules. They forget about justice, about science and use all means and methods to achieve money. There, all committees and commissions degenerate into fraudulent structures. Therefore, we believe that it is high time to dissolve all the old science award committees. And annually completely renew these committees. To not reward themselves or their friends. And there should be no anonymity of the members of these committees.

Recall that a scientist gives science the most precious thing that a person has: his mind. Accordingly, he does not have enough brain resources for household chores, for a career, for enrichment. Analogies: an athlete, a runner cannot work as a foot courier. A weightlifter, weightlifter cannot work as a loader. And if they happen to work as a courier or loader, then they

will be bad couriers and loaders. This is what the scientific administration uses. It is easy for the scientific administration to deceive a scientist, to get into him as a co-author, promising a small increase in salary. The administrators themselves collect hundreds and thousands of co-authored articles from their employees and crawl into academicians. All Russian academicians have about a thousand scientific co-authored works, without understanding any of them. But stubbornly imitating the West in the construction of useless colliders and telescopes, in space flights. Thankfully, this is easy to do. Just repeat what they do in the west. And say the same things.

Thus, the weight of the scientific administration turns out to be overestimated hundreds of times compared to the weight of the scientist. Academicians, have pity on the slave labor of scientists!

Hypothesis. It seems that the famous Perelman, who solved the Poincaré problem, did not at all refuse a monetary reward. And this reward was taken from him by the members of the committee for its award. Or the people involved. In exchange for the official worldwide recognition of Perelman and his solution to the problem. Otherwise, no one would ever know about him. Dispersed by agreement: Perelman is internationally recognized as a great scientist, and the money had to be given to rogues am. No wonder he spoke so negatively about those who supposedly wanted to give him a prize.

For reference. Our links to resolved issues, with GIFs.

- Structure of elementary particles: <http://universe100.narod.ru/E230-Zarjad.html>
- Antimatter structure: <http://universe100.narod.ru/E270-Antimatter.htm>
- The emergence of life: <http://universe100.narod.ru/LE090-Oglavlen.html>;
- GIF-picture about the origin of life: <http://universe100.narod.ru/Life-100-Korotk/Life-03.gif>
- Why there are no black holes: http://universe100.narod.ru/E360-Black_hole.html
- Complete theory of the Elastic Universe until 2018: <http://universe100.narod.ru/index.html>

Every year we add new and new proofs of the correctness of our Theory of the Elastic Universe. This theory is confirmed by rigorous mathematics. And for 18 years of its existence, not a single contradiction of this theory with reality has arisen.

In 2019, we added an article on the nature of electric charge and electric field. <http://universe100.narod.ru/E230-Zarjad.html>.

In 2020, we added an article about the occurrence of magnetic fields in stars and planets. <http://universe100.narod.ru/E460-Magnetic.html>. In particular, this paper puts the final nail in the coffin for black holes.

In 2021, we added an article on the causes of photon deceleration in matter. <http://universe100.narod.ru/E470-LeneHau.html>. In particular, in the experiments of Lina Howe. It's a shame that even the honored Lina Howe refers to the legend of entangled particles in her articles. Why? Because there are no accepted theories.

In 2022, we add an article stating that radio waves and electromagnetic waves in their classical sense do not exist.

What does a monochrome laser beam look like under high magnification.

In one of our last works, we showed and explained the structure of the photon. A photon has a nature that differs from the nature of elementary particles. Photons are some "scratches" of the elastic cosmic continuum that move at the speed of light without changing shape. These scratches, in accordance with the processes of their occurrence, have the form of springs or flat segments of sinusoids. These scratches always occur in pairs and move in opposite directions. And in general, a monochrome laser beam under strong magnification looks something like this:



Fig.1

In this case, the photon spirals have a smooth attenuation at the ends.

Basic thesis.

In the universe there is only that which is built into the basic processes of the birth, disappearance and transformation of matter. In particular, the basic processes of the birth and disappearance of photons are the processes of emission of photons by atoms and molecules, the processes of the so-called "annihilation", the processes of absorption of photons by matter, as well as the processes of photon collisions with the formation of elementary particles. If the processes of appearance and disappearance do not exist, then these objects do not exist either.

Antenna radiation.

In our previous articles, we have repeatedly expressed the idea that plane electromagnetic waves do not exist. Spherical, diverging from the center of the sphere, also does not exist. And all electromagnetic waves have the form of a set of local formations, photons. The time has come to tackle this problem in earnest.

Let's try to imagine the process of occurrence of electromagnetic waves in space. The analysis shows that such a natural process can be the rotation of stars and planets with a magnetic field. They can emit radio waves. A similar process is also the fluctuations of electric current in a radio transmitting antenna. They also emit radio waves.

Antenna radiation is described to us as a continuous (modulated) electromagnetic wave. But is it? From the point of view of the dual nature of all objects, radio waves are also corpuscles with energy $E=h\nu$. No more, no less. If an electromagnetic wave were emitted continuously, then its energy as corpuscles would increase indefinitely. However, this does not happen. This is an argument in favor of the fact that radio waves are emitted by the antenna in separate quanta or

photons. From the point of view of the electric current in the antenna, the energy of such photons could also have very different values. But that doesn't happen either. The photon energy is strictly $E=h\cdot\nu$. No more, no less. How to explain it? This is also easy to explain. If the electric current in the antenna is large, then the antenna simply emits more photons.

Thus, radio antennas emit streams of radio photons of a given frequency and intensity.

The radiation of radio antennas can be compared to a device for inflating soap bubbles. Which continuously generates soap bubbles of a given size and quantity. Only these bubbles do not have a spherical shape, but the shape of spirals, continuously breaking away from the antenna and flying into space.

What other conclusions can be drawn from the basic formula for photons $E=h\cdot\nu$? The conclusions are as follows. We can influence the frequency of the radio wave generated by the antenna. At the same time, the sizes of soap bubbles - photons increase. These dimensions are determined exclusively by the elastic characteristics of Gukuum and the mathematical solutions of the wave equation. Which allows only a discrete spectrum of solutions. And always an unambiguous form of photons. And this form is like this.

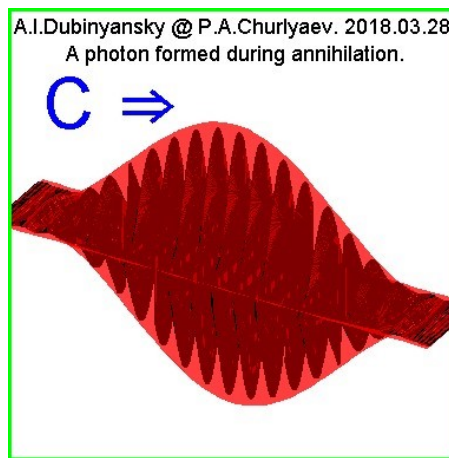


Fig.2

Similar conclusions can be drawn by analyzing the radiation of magnetic stars and planets.

We do not find any evidence of the existence of plane electromagnetic waves anywhere. The stream of radio photons is perceived by the receiving antenna as an average, as a continuous modulated radio wave. But in reality it is a stream of individual photons. In this case, the essence of modulating a radio wave is to change the intensity of the radio photon flux over time. This is how a modulated radio wave is usually drawn.

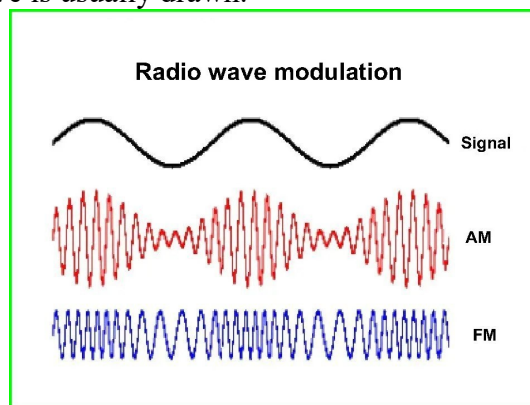


Fig.3

A real modulated electromagnetic wave looks like this.

- With amplitude modulation (AM), the intensity of the photon flux changes at a constant frequency.

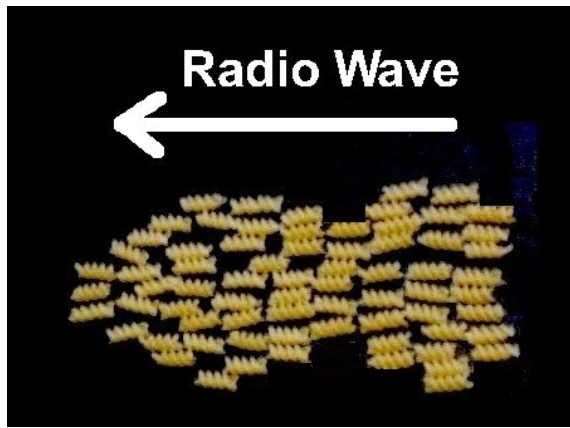


Fig.4

- With frequency modulation (FM), the energy of each photon changes at a constant intensity.

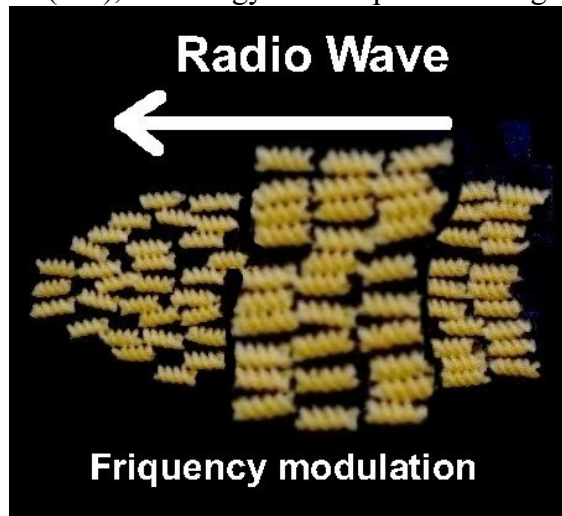


Fig.5

How to conduct an experiment.

To prove that the so-called. radio waves are a stream of photons, you need to conduct an experiment. It is necessary to investigate a weak stream of radio waves from a distant star or planet in the solar system. This should be done in the region of the lowest intensity of radio waves, in the region of single radio photons. We must learn to register single radio photons. Just as Cherenkov learned to register single light quanta with a dark-adapted eye.

Sizes and shape of photons.

The sizes of photons can be estimated by formulas for elementary particles. Although it is generally accepted that the mass of a photon is zero, this is not the case. The vortex mass of a photon is equal to zero. But the photon has energy and this is the deformation energy of the “scratched” Gukuum. Accordingly, it is necessary to substitute in the Compton formula not the mass, but the photon energy divided by c^2 .

$\lambda_F = h \cdot c / E$ where $E = h \cdot \nu$. After substitution, the obvious $\lambda_F = c / \nu$ is obtained.

To understand the shape of photons, it is necessary to return to our analogy again. Photons are like soap bubbles continuously blown out by a source of photons. The intensity of the photons blown out by the antenna is different in different directions. Here, for example, looks like the directivity of the radiation of an electromagnetic dipole.

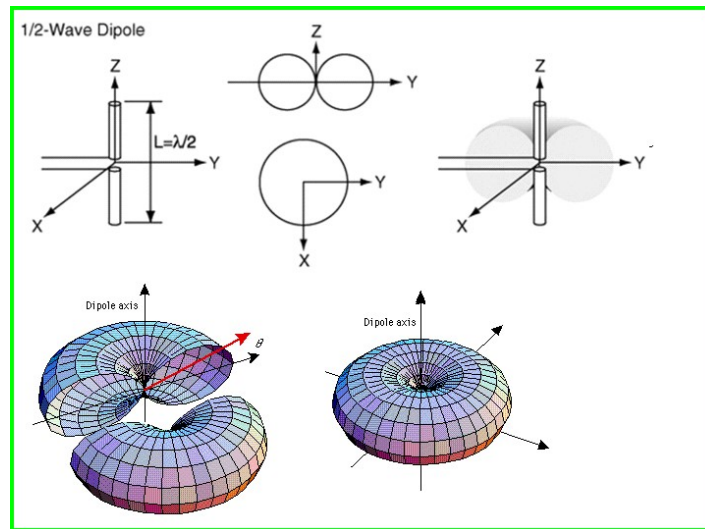


Fig.6

With the help of metal flat reflectors parallel to the main dipole, this diagram can be changed in the direction of a flatter propagation of photons. This is used in television transmitting antennas so that less energy goes uselessly into space.

This figure confirms the mathematical theorem that deformations in an elastic body always occur in pairs and scatter strictly in different directions. The emergence and expansion of pairs of photons gave rise to the legend of "quantum entanglement". That they say one photon always knows where the second photon is. Of course, this is nothing more than a professional legend. Every profession has its legends. And the cemetery workers have a legend about corpses coming to life at night.

From what place of the dipole transmitting antenna does a radio photon, a soap bubble, come off? It seems to come off the very center of the dipole antenna. The dipole radiation diagram shown in the figure is an averaged expansion diagram for millions of photons.

And now let's fantasize a bit about the "envelope" shape of the photon. Structurally, a photon is a spiral. But this spiral has an envelope surface. It is common to draw the envelope of a photon as something like a single half-wave of the $y = \sin^2 x$ graph. That is, with smoothed ends. In which small sinusoidal voltage waves are densely located. However, while studying the deceleration of photons in matter in our previous article, we drew attention to the existence of a certain component of the Gukuum deformation tensor, which is capable of interacting with other deformation objects in Gukuum. And if so, what prevents this component from interacting "with itself"? In what sense? And in the sense that photons can, after separation from the antenna, acquire a strictly spherical shape. Inflate like soap bubbles. This spherical inflation of photons occurs very quickly, at the moment of inflation and separation of the photon from the antenna. That is, initially, at the moment of the appearance of a photon near the center of the antenna, it can have an elongated shape.

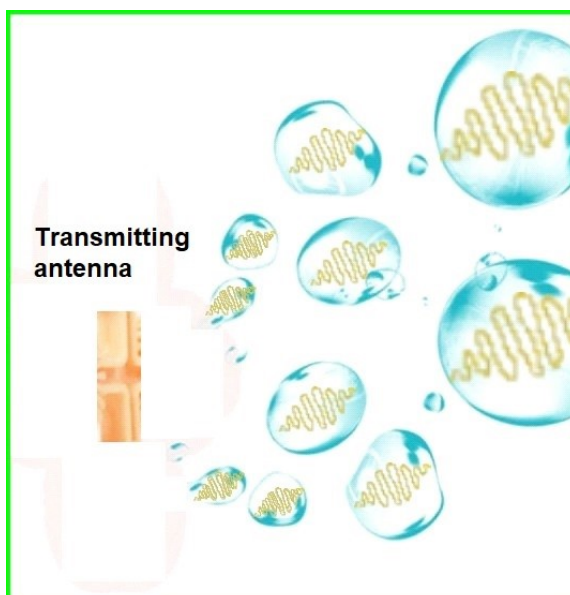


Fig.7

Just like real soap bubbles at the time of blowing have an oblong shape. You can blow a very long soap bubble. But when it goes into free flight, it will inevitably return to a spherical shape. After detachment, the photon also stabilizes to some form. And then the photon flies with this unchanged form in space, at the speed of light. Inside photons - sinusoidal deformations of Gukuum. The photon envelope shape itself is apparently close to the traditionally depicted shape in Figure 2.

This is what a dipole transmitting antenna looks like:

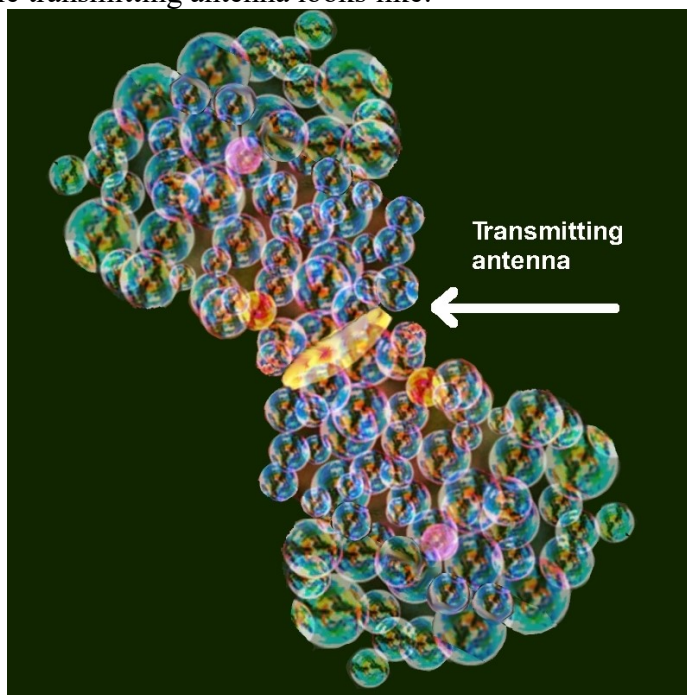


Fig.8

Where inside each soap bubble there is a small compressed sinusoid of Gukuum deformation with a wavelength $\lambda_F = c/v$.