Discussion on Contemporary Problems of Science

J.J. Smulsky
Institute of Earth's Cryosphere

In response to a letter from Australian researcher Stephen Crothers criticizing Einstein's equations for the gravitational field, I sent the following letter to the addressees of his letter on January 26, 2022.

January 26, 2022

Dear Colleagues,

Four-dimensional coordinates and curvilinear geometry are not needed to describe interactions in mechanics. They were introduced into the Theory of relativity to tear it away from reality. They, together with the Theory of relativity, must be thrown away and forgotten!

Contemporary fundamental science is defective and false. Why is it defective and false? Because it has created an unrealistic picture of the micro- and macro-world, it does not pave the way for the further development of society and does not impede negative trends in it. Such a science is not needed by society. Society is aware of this. People refer to the discoveries of sciences as circus tricks, and in searching for a solution to the problems facing it society directs its eyes to journalists and politicians [1].

I am sending you my paper [2] (file DaMaGrW02aJ.pdf).

The publication of this paper marks a turning point in basic science.

Everyone should read this paper. This is a real vaccine against relativism.

Now fundamental science is faced with the task not of creating a new surrounding world, but of analyzing the constructed ideas about the micro- and macrocosm. It is necessary in these constructions to reveal unreasonable hypotheses and remove the chains of imaginary constructions associated with them from science. By consistently doing this work, we will receive real knowledge about the world around us.

I encourage novice researchers to engage in this work, and not get carried away with the creation of grandiose structures from hypotheses, which will disappoint them with their meaninglessness by the end of their lives.

Sincerely yours

Prof. Joseph J. Smulsky
Institute of Earth's Cryosphere, Tyum SC of SB RAS, Federal Research Center
Malygina Str. 86,
625026, Tyumen, Russia.
Tel. +7-3452-68-87-14, E-mail:
http://www.ikz.ru/~smulski/smul1/;
http://wgalactica.ru/smul1/.

On January 27, 2022, I received the following letter from Prof. Dr. Gerard't Hooft.

Dear Mr Smulsky,

Before injecting your vaccine against relativity, I would like to do me a favour regarding Mr. Crothers. I realise that, being solely accompanied by the late Mr. Einstein and the late Mr. Hawking, I am in a minority here. S be it. I hope you could ask Mr. Crothers what he means by the concept of a "pseudotensor". There may be a misunderstanding here. To me, the word pseudo means deception, like in "pseudonym" (not the real name), etc.

This is why I take it for granted that a pseudotensor is not a tensor. Indeed, Einsten's pseudotensor only takes first order derivatives, whereas all true tensors in GR require higher orders somewhere, if no matter contributions are allowed. So general relativists, who from my perspective seem not all to be exactly complete idiots, introduce objects that are not true tensors. In spite of this, the things they introduce can be useful. So on with the pseudotensors. Now this was short, do these statements make sense to Mr. Crothers?

I'm afraid your vaccine will be a bit too powerful for me. I think I can do fine without it. Thank you.

G. 't Hooft

Internet-information about Prof. Dr. Gerardt Hooft

Gerardus (**Gerard**)**'t Hooft** (born July 5, 1946) is a Dutch theoretical physicist and professor at Utrecht University, the Netherlands. He shared the 1999 Nobel Prize in Physics with his thesis advisor Martinus J. G. Veltman "for elucidating the quantum structure of electroweak interactions".

His work concentrates on gauge theory, black holes, quantum gravity and fundamental aspects of quantum mechanics. His contributions to physics include a proof that gauge theories are renormalizable, dimensional regularization and the holographic principle.

January 27, 2022

Dear Prof., Dr. Gerard't Hooft,

Thanks for your letter! At your request, I am forwarding this letter to Mr Crothers.

I agree with you that the pseudotensors of the General Theory of Relativity cannot be required to fulfill the properties that are inherent in real tensors.

I fully share your position: there are real things, and there are pseudo-things, i.e. deceitful things or imaginary things.

For example, Relativity is pseudoscience, while Albert Einstein and Stephen Hawking are pseudoscientists.

I spoke about this to Mr. Crothers many times over the course of 20 years, and suggested that he study the interactions of real bodies. During this time, he could have done a lot and established how our world actually works. But he ignores my words and continues to refute such pseudoscience as the Theory of Relativity with the help of exact scientific methods.

With the help of exact scientific methods, the Theory of Relativity cannot be refuted. It can be refuted using pseudoscientific methods. But why do it, and waste time on it? It needs to be thrown away, forgotten and engaged in useful work.

I hope you will read my article "Dark Matter and Gravitational Waves" [2]. I will be glad if you share with me your impressions about it. It seems to me that you will like it, and we will get even closer in our understanding of the beautiful world around us!

Sincerely yours Prof. Joseph J. Smulsky

January 29, 2022

But in your fourth line you seem to get my main message wrong, of course. Relativity is not a pseudoscience. A pseudotensor is a mathematically very well-defined concept where the name of the object indicates that it isn't a tensor, nor does anyone in his right mind mistake it to be a tensor. It only looks like a tensor at first glance. Similarly there is nothing wrong with having a pseudonym. Einstein and Hawking knew what they were doing so accusing them of being pseudoscientists is totally misplaced. Similarly there is nothing deceptive about pseudotensors. They just are what they are. If you want to avoid them entirely, fine, but you make your life more difficult than necessary. You just need to understand what you are doing.

That usually helps a lot.

Greetings,

G. 't Hooft

February 03, 2022.

Dear Prof., Dr. Gerard't Hooft,

in your letter there is no appeal to the addressee, so I did not immediately understand that you were replying to my letter.

You write that Einstein and Hawking knew what they were doing.

Since we are talking about the foundation of the Theory of Relativity, let's leave Hawking alone. Einstein didn't know exactly what he was doing. He was bad at math. Mathematicians, in order to expand the scope of their results, clothed the Special Theory of Relativity in a four-

dimensional form, and the General Theory of Relativity in curvilinear geometry and tensor calculus. This mathematical shell was the pinnacle of science for Einstein. Therefore, he gladly accepted these forms for the Theory of Relativity.

In mechanics, namely in the theory of strength, tensors are introduced to describe the distribution of strains and related stresses in the volume of a body. In fluid mechanics, tensors are introduced to describe velocity gradients and associated viscous friction stresses. These tensors describe these states of matter, and remain unchanged when considering these states in other coordinates. This is where the properties of tensors and operations with them follow.

The Special theory of relativity considers the interaction of two charged particles, while the General theory of relativity considers the interaction of two gravitating bodies. In the first case, there is no need to enter four-dimensional coordinates, and in the second, curvilinear geometry and tensor calculus.

Steven Crothers focused on General Relativity. He showed that from the position of curvilinear geometry, a number of provisions of the General Theory of Relativity (GR) look ridiculous, and the properties of its equations contradict the laws of tensor calculus. But this should be the case, since tensors were created to describe certain states of matter, and not for the interaction of two bodies. You agreed with this, stating that GR tensors are pseudotensors, that is, they are not real tensors. So we can assume that Steven Crothers has solved the problem set for himself: the curvilinear-tensor form of general relativity is defective.

Four-dimensional coordinates and curvilinear geometries are just a wrapper in which the theory of relativity is wrapped. And what candy is under the wrapper?

Unfortunately, Einstein achieved unprecedented success with the transition to these forms. All the attention of the opponents of the theory of relativity was diverted to this form, and everyone swallowed and accepted Einstein's candy. And on it the modern picture of the micro- and macroworld is built. This is the greatness of Einstein: he managed to sell his goods dearly!

The interaction of two charged particles, as well as two gravitating bodies that move relative to each other, I consistently expressed in three-dimensional and rectilinear geometry [3] - [6]. All this is done without hypotheses on the basis of known experimental laws. Essentially, this is special and general relativity, but without the four-dimensional and curvilinear wrapper. In addition, the candy itself is different. Einstein's candy wasn't sweet, it was nasty. When considering the interaction of two charged particles, Einstein accepted the hypothesis that the mass of one particle changes when moving relative to the other, that is, the mass depends on the speed.

However, from the experiments and their generalizations by Coulomb, Faraday, Ampere, as well as Biot, Savart, Laplace and others, it followed that the force of interaction of a charged particle with an increase in its speed relative to another particle decreases in comparison with the Coulomb force. It tends to zero as this speed approaches the speed of light. In 1968 I derived equation (1) (see [2]) for force. With force (1), the trajectories of particle motion were calculated [6] - [8]. They are strikingly different from Coulomb trajectories. As is known, the difference between the trajectories of particle motion and the Coulomb trajectories gave grounds for the introduction of new particles. So the set of introduced particles is due to the relativistic description of the interactions of charged particles.

On November 21, 2021, Professor Manuel F. Perez-Polo from Spain sent me an email. Here is the beginning of his letter: "I am reading your excellent book Theory of Interaction [5]… I agree with your basic idea about the interaction between two charged particles depends only on the relative magnitudes i.e. position between charges and relative velocity".

Professor Manuel F. Perez-Polo counted all the trajectories in my books [4] - [5]. His results matched mine.

I have no doubt that there will be a researcher who, according to my formulas, will recalculate all the experiments that led to new particles, and will come to the conclusion that there are no grounds for introducing these particles.

And what candy Einstein in the General theory of relativity? He accepted the hypothesis of the propagation of gravity at the speed of light. This candy is also bad. The only reliable

confirmation of this hypothesis is the excessive rotation of Mercury's perihelion. The hypothesis also turned out to be false: the excessive rotation of the perihelion of Mercury is due to the oblateness of the Sun [9] - [10].

Without the curvilinear-tensor shell, the General theory of relativity consists in force (2) (see [5]). But there is no basis for a propagation of gravity at the speed of light, so the attraction of two bodies is determined by Newton's gravitational force!

So all his life, Einstein was fascinated by fantastic ideas: "Imagination is more important than knowledge" – he is saying. Einstein was not an explorer, he is a real pseudo-scientist.

You write that life will be harder without the Theory of Relativity. On the contrary, life with the Theory of Relativity becomes harder every year. The theory of relativity has become a model on which the science of the 20th century was built and continues to be built in the 21st century. Hypotheses are accepted, a theory is built on them, and it is assumed that this is how the world works. This is an imaginary world, and the real world is different. As soon as humanity is faced with real circumstances, all the achievements of fundamental science turn out to be unusable.

The COVID-19 epidemic is proof of this: no one knows what is happening and what will happen tomorrow.

The theory of relativity has destroyed fundamental science!

Humankind faces complex problems that can be solved only by studying them and finding methods for solving them. And this requires honest and true science. Modern science is not like that. It needs to be revised, all unfounded hypotheses eliminated, and chains of inference associated with them removed. There is enough work for everyone here, both antirelativists and former relativists [1].

I advised you to read my article [2]. Why didn't you respect her? I am older than you and I know more. And the elders must be obeyed!

As a child, you told your teacher that you wanted to know everything. Why don't you read my article? You will learn a lot from it, if not everything. And if you know, then you can do a lot more.

This is an unusual article. Professor Igor R. Vengerov from Donetsk (Donetsk People's Republic) called her a model of scientific courage and determination. Borislav Vankov, an outstanding thinker from Sofia, said about this article: "I have already read your article on modern cosmology several times in English and Russian and will re-read it. I also sent it to some friends. I can only admire your style and presentation; everything is insightful, distinctly, clear, logical and definite".

There have never been such articles in the history of science. This is the turning point of science. The age of presumptions and hypotheses is coming to an end. The era of knowledge begins. I again attach article [2] in the file DaMaGrW02aJ.pdf.

It is necessary to create a new fundamental science, without the theory of relativity and quantum mechanics, without the expanding universe, the Big Bang and without other inventions of Mainstream science. Many people talk about it. For example, in response to my letter of January 27, Sjaak Uitterdijk sent me his book "Physics since Einstein", in which he outlined the path for such a science. Of course, the proposals put forward by him must be carried out by solving complex problems, by reinterpreting the experiments carried out and by conducting new experiments. I solved many problems. Their results support some of Sjaak Uitterdijk's ideas, while others do not. These tasks show that the world is arranged differently, not in the way that was previously assumed.

In my book [1], I outlined the path of development of science, taking into account all the problems I solved. And I solved a lot of them, apparently, more than all the physicists taken in 120 years.

Tasks, tasks, tasks... What are these tasks for?

I solved the problem of the interaction of charged particles, and the absurdity of the Theory of Relativity became clear. I solved the problem of the interaction of the bodies of the solar system for 100 million years [11] - [12], and the problem of the perihelion of Mercury [9] - [10] became clear. I solved the problem of the rotation of the Earth in 20 million years [13] - [14], and the

problem of long-term climate fluctuations [15] - [16] became clear. I solved the problem of motion of bodies in globular star clusters [17] - [18], and revealed all the processes occurring in them. I solved the problem of central-symmetric accretion [1], [4] - [5], and it became clear that the Universe cannot expand. I solved the problem of fluid motion in vortices [19] - [20], and it became clear when tornadoes and tropical hurricanes occur, and how to prevent them [21].

The problem of the interaction of atoms in a molecule will be solved, and it will become clear when a substance is a gas, when a liquid, and when a solid. The problem of the interaction of particles in an atom will be solved, and it will become clear when the atom is stable and when it is radioactive. The problem of the interaction of particles in the nucleus will be solved, and it will become clear whether thermonuclear fusion is possible. And if it is possible, then how to implement it.

All these tasks were not solved for 120 years. For 120 years, fundamental science has been engaged in the Einsteinian heresy!

What will be the science of the future? You can see it here [22].

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