ON THE RELATION OF METAPHYSICS TO PHYSICS

Yo'ldoshev Azizbek

Denov tadbirkorlik va pedagogika instituti E-mail: y.azizbek0711@gmail.com

Hasanov Jonibek Norboy o'g'li

Tashkent State Pedagogical University named after Nizami E-mail: khasanovjonibek775@gmail.com

Jurakulov Sanjar Zafarjon o'g'li

Asian International University, Senior Lecturer E-mail: juraqulovsanjarzafarjonugli@oxu.uz

ABSTRACT

Ignoring a crucial nuance in using the concept of metaphysics is "Does physics come first or metaphysics?" It makes it difficult to answer the question. The nuance under consideration is related to the "two-sided" structure of metaphysics. Metaphysics as a science refers to two types of phenomena with the existence of metaphysical principles - things that cannot be entered into concepts, closed to interpretation, and things that are realized through experience. From this point of view, it can be said that every society, regardless of the level of civilization, has some metaphysical principles. However, it is also observed that societies with metaphysical principles fail to develop metaphysics as a science. To develop metaphysics as a science, it is necessary to engage in natural sciences and use the results of natural sciences. In our research, we will try to show the connection between the areas that feed metaphysical teachings and these areas and metaphysical teachings with examples from the history of philosophy.

Key words: metaphysics, physics, natural sciences, existence, reality.

Enter

If we look at the history of philosophy, we see that metaphysical doctrines have always been criticized, and these criticisms have been advanced by philosophers with metaphysical doctrines. Even this fact requires us to distinguish between metaphysical principles or the ground that makes metaphysics exist—what one might call "existence"—and metaphysics as a science. The fact that the cracks in the history of philosophy - Kant's three criticisms - could not prevent the emergence of metaphysical teachings can be explained by the fact that the ground that created metaphysical sciences was not the destination of these cracks. However, with Kant, it was confirmed that any metaphysical discipline cannot survive without observing developments in the natural sciences. 2,500 years of philosophical history and even more ancient wisdom tells us that the ground that creates metaphysics is never broken.

Because at no point in history have people stopped speculating about existence in general, and their non-physical aspects in particular. The main problem is with the nature of the idea. Metaphysical principles are a kind of guarantee of metaphysical doctrines, they do not feed metaphysical doctrines, but only make them exist. Since the ground that makes metaphysics possible, that is, "existence," did not provide nourishment for metaphysical doctrines, both different and contradictory metaphysical doctrines arose. If the ground on which metaphysics exists feeds metaphysical discourses, then the rejection of any metaphysical doctrine—especially Kant's rejection of classical metaphysics—means the rejection or even the disappearance of the ground on which metaphysics exists. However, since attempts to deal with metaphysics did not end after Kant, it is understandable that the ground on which metaphysics exists was not struck by these criticisms.

The nature of the land in question and the forms of its determination should also be emphasized. Since our research is an analysis of the history of philosophy, we will content ourselves with showing the existence of such a foundation. As we have learned from the written history of philosophy, it is no coincidence that the first philosophers were particularly interested in nature and were naturalists. The Ion School can be

considered an organization where scientific thinkers work together. Similarly, Whitfield echoes Sarach's findings. Greek science was initially speculative rather than empirical, and from B.C. From the 6th to the 5th centuries, thinkers who were both the first scientists and the first philosophers of the history of thought grew up.

Therefore, there is a high probability that pre-Socratic natural philosophers went to Egypt, Iran, and Mesopotamia, got acquainted with the scientific developments there, and returned to their countries. He (Thales) went to Egypt as a merchant, where he studied geometry and astronomy from Mesopotamia. The discoveries and other achievements attributed to Thales were related to the sciences developed in Egypt and Babylon. Likewise, Conford notes in one of his articles that Greek philosophers enjoyed the sciences that originated in Egypt and Babylon. Thus the rise of science means that the mind becomes dispassionate and sails on seas of thought that seem strange to minds bent on the immediate problems of action. The connection between philosophy and the natural sciences in the classical period continued in the same way in the modern period. Although there are differences between classical metaphysics and modern metaphysical approaches, the source from which they feed is the sciences of their time. What do we mean by a change in metaphysical approach? As social dynamics change, the nature of the search for truth—though not its form—changes, and one of the ultimate results of this change is a change in metaphysical doctrines.

The ancients could not achieve what we have set forth because they were deficient in learned ignorance. It is a very optimistic and modern attitude to read metaphysical teachings as the process of transformation/transformation as the development of the consciousness of being. But in this case, it is useful to consider Comte's point of view. It can be said that the positive philosophy created by Comte should be considered metaphysical, it was influenced by changes in the natural sciences and in this direction turned to positive science to explain all phenomena. Comte establishes a sociology based on biology. The subject matter of biology and sociology is the same; organism and collective organism. When we move from the inorganic world to the organic world in nature, we encounter new concepts that did not exist before.

Another example of how metaphysical teachings are closely related to the understanding of science of his time is Galileo. The point where you should turn your eyes to determine the goal is the "book of nature". In fact, the main subject of philosophy is to examine the "book of nature". Examples of science providing data for metaphysics can also be seen in the analysis of the history of thought. The influence of philosophy on scientific research was not only general; Individual scientific achievements have also influenced and directed philosophical views. However, Plato, who gave his color to classical metaphysics, under the influence of the materialism of the early physicists, was convinced that there is a plan and purposefulness everywhere in nature. It has become a common endeavor to argue that science is a flawed means of attaining truth, especially after criticisms of positivism. Especially K. Popper, T. Kuhn, I. The critiques of positivism by Lakatos, P. Feyerabend, and others, while valuable, miss a very basic point. Science is not a finished activity.

Criticism of anything is possible if the frame of that thing is drawn, filled, or covered. Consider Kant's critique of classical metaphysics. It was clear what principles classical metaphysics was based on, what logic it derived from, and what universe it led to. In other words, Kant had clear boundaries and scope. Does the same apply to science? No, it's not real. Because science is not a finished activity, its results cannot be looked at from now or through the history of science.

The science of existence or the existence of science?

Trying to understand nature is the first step in human efforts to understand existence. We must remember that scientific theories advance metaphysical theses before metaphysics. The natural studies of the first philosophers and the knowledge they gained later led to the emergence of metaphysical doctrines. First of all, many philosophers thought that the first basis of all objects was only in the form of matter. The conclusion that follows from this is that it is impossible to do metaphysics without referring to nature.

Depending on their exposure to philosophy, people are more or less elevated to the point where they stand out from the crowd, some to a greater or lesser degree. The

point where you should turn your eyes to determine the goal is the "book of nature". So why did the metaphysicians who enjoyed the natural sciences, including Aristotle, who said that existence has many meanings, assume that the theses they developed represent absolute truth? Could it be that the fact that they accept the data of the natural sciences as immutable is what gives them such a standard of certainty? Aristotle, who used the principle of the 4th cause in the book "Physics" and composed the work "On the Heavens" with the principle of the 4th cause, assumed that the science of physics and astronomy to which he referred contained certain information. Similarly, is there a classical metaphysician or philosopher who philosophically criticizes the natural sciences, in other words, the philosophy of science? Criticism of the natural sciences is related to the use of science as a political tool and the process of turning science into a tool of exploitation in the service of the economy. Therefore, it is difficult to say that the claim of science to the truth did not exist in the classical period. In this respect, it is significant that Aristotle found the solid information he was looking for in geometry, his firm belief in geometry, and his belief that accurate and reliable information can be obtained in the natural sciences based on this science or by accepting it as such. example When Aristotle wrote "Physics", did he think that the theses he put forward were not absolute? We all know it can't be any other way.

When things happen that may be beyond our observation, it is impossible to say whether they exist or not. Hence, the object of knowledge is something that is necessary and therefore eternal. Did Aristotle, who asserted that scientific knowledge is different from thoughts disconnected from experience that we encounter in speculation, think that it is possible to falsify theses he developed in physics? If the idea that sciences could change over time and that new systems of physics could emerge had dominated classical thought, the scholastic era would not have arisen in the West and the East. For centuries the data of the natural sciences must have been accepted as immutable and absolute, so that the metaphysical doctrines derived from these data could be proved to be fixed and absolute. With the innovations in other natural sciences, especially classical physics, classical metaphysics lost the ground on which it was nourished.

When it was decided that metaphysics should take into account the innovations in natural science and be modified accordingly, new metaphysical doctrines were developed. We can evaluate metaphysical approaches that account for developments in the natural sciences and consider their agreement with these developments in these directions. Because scientific results give meaning to metaphysics.

Ways of metaphysical research

Several metaphysical approaches that are highly representative in terms of understanding the problem can be considered in this context. For example, Descartes argues that we need to account for changes/changes in the natural sciences, especially physics. As for me, I am a little more curious, and I would like you to explain to me the particular difficulties I have encountered in every discipline, chiefly in connection with the inventions, images (...) of men; for I think it is useful to know these things, not only to profit by them, but also that our judgment may not be led astray, so that we may admire what we do not know. As the quote shows, Descartes argues that sciences and inventions are not only useful, but also necessary for the use of sound reasoning. The logical result of this approach was a metaphysical doctrine derived from the data of natural science.

And the Cartesian world is a strictly formal mathematical world, a world of realized geometry, of which our clear and precise ideas give clear and definite knowledge. There is nothing in this world but matter and motion; or because matter is the same as space or extension, there is nothing but extension and motion. The metaphysical doctrine that Descartes developed because of the interaction he perceived can be criticized from various points of view. But the important point is that Descartes understood. Descartes, who said that the truths I say will be accepted even if I don't get them from Aristotle or Plato, realized that classical metaphysics could not respond to new developments/changes in physics, and thus classical metaphysics was incompatible. the universe drawn by the new physics led to the development of metaphysics based on this epistemology. The incompatibility of existential thinking with the changes/changes in the natural sciences made it inevitable for Descartes to

develop an epistemological way of thinking that could quickly adapt to the changes/changes in the natural sciences.

We know that Descartes wrote to Mersenne that "Meditations contain all the principles of physics." His opposition to scholastic logic can also be interpreted in this direction. Henceforth logic must also check; but not scholastic logic, for it is nothing more than dialectic, which serves no other purpose than to teach others the means of explaining certain things, or to utter a great deal of nonsense, and it destroys rather than enhances common sense. It is not logical to say that Descartes' only option was to develop an epistemologically centered way of thinking. But we must emphasize that it is not Descartes's decision that matters, but his decision. The search for truth by the light of nature, this pure light shows all the ideas which the intelligent man can form without the help of religion and philosophy about everything that occupies his mind, and penetrates everything, even the mysteries of the strangest things.

Islamic Thought: Ontologies Based on the Natural Sciences

The influence of the natural sciences on metaphysics also applies to theology, Sufism, and Islamic philosophy. The metaphysical scheme described in "Gulshen-i Raz", one of the important works of the Akbari wing of Sufism metaphysics, was created taking into account Ptolemy's astronomical data. This great sky, this Throne, makes a complete revolution around the universe every day and night... However, in the continued section, the eight heavens turn from west to east, unlike the sky we call Atlas, Shebüsteri in his to see the existence and observe that the section is based on Ptolemaic astronomy data. Ibn Sina's theory of emanation - on the contrary, the metaphysical picture drawn by other scientists is based on the data of physics, astronomy and natural sciences developed in antiquity.

It can be seen that Ibn Sina's theory of emanation in its simplest form is closely related to Ptolemaic cosmology, and Ibn Sina interprets the "scientific" paradigm originating from Ancient Greece with new views, but does not go beyond the paradigm and does not present it. another view or expansion. also in the theological works of the contractor on the metaphysical topics of the ancient natural sciences; It is widely used

in arguments for God and creation arguments. Ironically, the word adopted atomistic cosmology and VIII. This cosmology, which began to dominate in the second half of the century, dates back to at least the 14th century. This lasted until the century. The atomic physics of Democritus, considered a materialist, was the physics adopted by theologians. The "Atomic Universe Model" is the dominant universe vision that has guided Islamic civilization for more than a decade. With the development of the natural sciences, the question of how well grounded the body unity or emanational metaphysics is becomes important.

Turning these classical metaphysical teachings into a matter of faith not only creates intellectual violence in academic life, but also leads to an existential problem: the problem of associating the Qur'an, the source of existence and knowledge, only with a certain kind of metaphysics. As a natural consequence of this association, a certain type of metaphysics is accepted as the only legitimate and orthodox interpretation of the Qur'an. The perception that the Qur'an, accepted as a source of existence and knowledge, only leads to/should lead to classical metaphysics, prevents a proper evaluation of classical traditions of thought. And the issue takes on an ideological dimension rather than a search for truth. In the texts of Kalam, Sufism and Islamic philosophy, there are valuable information for their time, information suitable for our time, and approaches that provide solutions to many problems. However, the use of the texts in question for ideological purposes, their commodification, in Marxist terminology, prevents them from being given their due place.

Criticism of science and metaphysics

In the current period, the process of deification of metaphysics is being observed in line with the intensification of criticism of science. If we do not take into account that the source of both classical metaphysics and post-Kantian metaphysics is the natural sciences of their time, especially physics, the process of deification in question becomes "academic dominance". The fact that science undergoes constant changes/changes means that metaphysical doctrines also change/change in each period, and this leads us to the conclusion that there can be no fixed metaphysical doctrine. To

say that a stable metaphysics is possible is to say that "the truth is attainable." However, although this is a reality independent of humans, at best it can touch reality. Such communication allows for unlimited translation activities. On the other hand, we should avoid defending Heidegger's theses, such as that the theses about being developed by natural philosophers or early naturalists are true, that pre-Socratic philosophy is closer to being, and so on.

Because the exceptional aspect of epistemology of the Heideggerian attitude seriously jeopardizes the possibility of speaking about being. His goal was to put existence, existence itself, at the center. Thus, the act of "searching for the foundation" was placed from the epistemological plane to the ontological plane. However, Heidegger must have faced such a danger because of his special interest in poetry and his insistence that we should heed the call of being. However, poetry should not have a special place at the point where such a relationship should be reached. Because Heidegger's philosophy still remains at the core of metaphysics, with poetic themes such as revealing the meaning of being, taking possession as gift and gift, dividing existence and losing its origin.

Poetic ontology is inevitably at the margins of theological discourse. In this case, the best course of action we should take is to "keep quiet". Therefore, Heidegger's understanding of being is difficult to defend because it does not take epistemology into account. Even Heidegger himself put forward theses against this attitude. Since the sciences are one of human relations, they have the type of existence of this being (man). Terminologically, we call the entity in question Dasein - it is very interesting that when the concept of Dasein, one of the defining concepts of being and time, is mentioned for the first time, its definition is given and its connection with science is emphasized. Therefore, we must speak from a certain epistemological basis to be able to say that studying the meaning of being requires us to listen to the voice of being. Fate remains hidden as the sender of truth. But although it is not revealed as the history of existence, the fate of the world is predicted in the poem. The meaning of existence can be given

in poetry, but it cannot be ignored that every poem has a certain epistemological character. We do not need to say that every poem is the work of a certain cogito.

Offer

The metaphysical doctrines present in Western thought today make the most of the information revealed by the natural sciences, and the epistemological attitude formed by the natural sciences defines ontology and cosmology. For example, the cosmological debates of famous physicists Penrose and Hawking differ from classical metaphysics or classical cosmology. In fact, astronomy, biochemistry, physics, etc. It is formed through the data of sciences. In modern science, cosmology is the study of the structure of the universe or universe, i.e. all material components as distinct from mental and spiritual entities. This research is mainly carried out under the umbrella of (...) physics and astronomy. Penrose, Hawking and others develop a new vision of the universe and a new understanding of existence based on the information discovered by the natural sciences.

According to Hawking and Mlodinow, science, at its current level, can explain within its limits questions such as how the universe came into being and why it has such delicate habitable conditions. However, all metaphysical teachings try to do exactly what Hawking and Mlodinov say. If we want to go deeper into the main questions of philosophy, we must come to terms with quantum theory, which is the most precise and mysterious of physical theories. In this sense, it can be said that Hawking, Penrose, Mlodinov and others have their place in the history of philosophy has and is an iterative process. A change in the model of the universe also leads to a change in the concept of God. For example, in Europe in the 17th century. The concept of the universe, which changed with the scientific revolution of the 19th century, also caused a change in the concept of God. The fact that classical metaphysicians assert that their theses are absolutely correct stems from their faith in natural sciences. The failure of the natural sciences to convey truth and embody certainty is due to events/developments in the history of science over the last few centuries.

Changes in the natural sciences opened up a critique of science that did not exist in the classical period. Since no such change/transformation took place in science during the classical period, there was complete faith in the natural sciences and the metaphysical doctrines enjoyed by them were claimed to contain immutable and certain information. Today's metaphysical teachings must also take into account changes/changes in the natural sciences. If we want to use our philosophical intuitions to the extent we want, we must interpret our worldview according to quantum theory. Just as a person cannot abandon the practice of science, he cannot abandon the development of metaphysical teachings. Given Hegel's description of philosophy, "The owl of Minera begins to fly only at sunset," it can be said that philosophy flies over the changes/transformations that occur "at noon" in the natural sciences. Alain Badiou also says the following in this context: "We can start by considering that the future in question is based primarily not on philosophy and the history of philosophy, but on new phenomena in certain fields that do not have a direct philosophical nature.

This future is especially based on facts in science: for example, mathematics for Plato, Descartes or Leibniz, physics for Kant, Whitehead or Popper; History for Hegel or Marx; Biology for Nietzsche, Bergson or Deleuze.

Summary

It is observed that the dethroned concept of metaphysics has come back to life. It has been said that metaphysics, whether in the continental or the analytic tradition, has returned to the stage of philosophy, so that true thought cannot exist without metaphysics. But a returning metaphysics is not a banished metaphysics. The prevailing perception in the intellectual life of our country is that classical metaphysics once again dominates or is a candidate to dominate the scene of philosophy. This perception is both wrong and dangerous. Since metaphysical teachings have been nourished by the natural sciences from the beginning, today's metaphysical teachings cannot ignore the post-Copernican concept of science; Actually, it doesn't come. In addition, the gradual disintegration of the traditional ontology under the impact of the new philosophy weakened the validity of inferring from the predicate the substance

that supports it. Every development in Newtonian science brought new evidence to Leibniz's thesis.

XX. The reason why positivist philosophy became popular in the 19th century was because the metaphysics of the time could not reform or change itself in the face of changing/changing understandings of science. The reason why metaphysics, which could not fully effect this change, but was at least on the way to change it, quickly drove positivism from the philosophical scene was that metaphysics found a way to feed on the modern sciences. Undoubtedly, metaphysicians saw the results of science and revised their metaphysical theses. What needs to be done is to develop a new metaphysical perspective that takes into account the data of the natural sciences. Because metaphysics is based on science, which is the source of knowledge.

Used literature

- 1. Botirov, T., Abduazizov, N., Sodiqov, B., & Khusanov, Z. (2023). Mathematical model of the movement of dust-contained air flows in the air filter of hydraulic systems. In *E3S Web of Conferences* (Vol. 390). EDP Sciences.
- 2. Jurakulovich, K. Z. (2021). The Requirements For Students's Independent Work. *The American Journal of Social Science and Education Innovations*, *3*(01), 235-243.
- 3. Khusanov, Z. J. (2021). Person-Centered Learning Technology And Its Role In The Repetition And Re-Learning Of Physics. *The American Journal of Applied sciences*, *3*(04), 292-297.
- 4. Хусанов, З. (2021). Факторы совершенствования системы самостоятельной работы студентов. *Общество и инновации*, 2(4/S), 516-522.
- 5. Joʻraqulovich, X. Z. (2022). FIZIKA FANIDAN MASALALAR YECHISHDA INTEGRALLASH QOIDASIDAN FOYDALANISH: Xusanov Zafar Joʻraqulovich, pedagogika fanlari falsafa doktori (Phd) Navoiy davlat konchilik va texnologiyalar universiteti "Umumiy fizika" kafedrasi dotsenti. Образование и инновационные исследования международный научно-методический журнал, (12), 23-27.
- 6. Zoirova, L. K., Bozorov, E. K., & Khusanov, Z. J. (2022). USE OF VARIOUS INNOVATIVE-INTERACTIVE METHODS IN TEACHING THE SCIENCE OF" RADIATION MEDICINE AND TECHNOLOGIES" IN HIGHER EDUCATION. *Journal of Pharmaceutical Negative Results*, 3248-3252.

- 7. Хусанов, З. Ж., Хашимова, Ф. С., & Журакулов, А. Р. КОНКРЕТИЗАЦИЯ СВЯЗИ ФИЗИКИ С ПРОИЗВОДСТВОМ ПРИ ИЗУЧЕНИИ ЯВЛЕНИЯ ЭЛЕКТРОМАГНИТНОЙ ИНДУКЦИИ. ББК 74.58 S30 Международный редакционная коллегия, 380.
- 8. Хусанов, 3. Ж., & Турсунметов, К. А. (2020). ҚИСҚА МУДДАТДА (ЭКСТЕРНАТ) ФИЗИКАНИ ҚАЙТА ЎРГАНИШ МУАММОЛАРИ. Современное образование (Узбекистан), (10 (95)), 60-65.
- 9. Jurakulov, S. Z. (2023). Nuclear energy. *Educational Research in Universal Sciences*, 2(11), 514-518.
- 10. Oghly, J. S. Z. (2023). PHYSICO-CHEMICAL PROPERTIES OF POLYMER COMPOSITES. *American Journal of Applied Science and Technology*, *3*(10), 25-33.
- 11. Oghly, J. S. Z. (2023). THE RELATIONSHIP OF PHYSICS AND ART IN ARISTOTLE'S SYSTEM. *International Journal of Pedagogics*, *3*(11), 67-73.
- 12. Oghly, J. S. Z. (2023). A Japanese approach to in-service training and professional development of science and physics teachers in Japan. *American Journal of Public Diplomacy and International Studies (2993-2157)*, *1*(9), 167-173.
- 13. Oghly, J. S. Z. (2023). BASIC PHILOSOPHICAL AND METHODOLOGICAL IDEAS IN THE EVOLUTION OF PHYSICAL SCIENCES. *Gospodarka i Innowacje.*, 41, 233-241.
- 14. Oghly, J. S. Z. (2023). STRATEGIES FOR SUCCESSFUL LEARNING IN PHYSICS. *American Journal of Public Diplomacy and International Studies* (2993-2157), 1(9), 312-318.
- 15. Oghly, J. S. Z. (2023). New Computer-Assisted Approaches to Teaching Physics. *American Journal of Public Diplomacy and International Studies* (2993-2157), *I*(10), 173-177.
- 16. Oghly, J. S. Z. (2023). A Current Perspective on the Relationship between Economics and Physics. *American Journal of Public Diplomacy and International Studies* (2993-2157), 1(10), 154-159.
- 17. Jurakulov, S. Z., & Turdiboyev, K. (2023). STUDYING PHYSICS USING A COMPUTER. *GOLDEN BRAIN*, *I*(33), 148-151.
- 18. Jurakulov, S. Z., & Nurboyev, O. (2023). RELATIONSHIPS BETWEEN THE DIRECTIONS OF FINANCE AND PHYSICAL SCIENCE. *GOLDEN BRAIN*, *1*(33), 168-172.
- 19. Jurakulov, S. Z. O., & Nurboyev, O. (2023). THE MAIN SIGNIFICANCE OF THE DEPARTMENTS OF PHYSICS IN THE DEVELOPMENT. *GOLDEN BRAIN*, *1*(33), 162-167.
- 20. Jurakulov, S. Z. O., & Turdiboyev, H. (2023). RELATIONSHIPS OF PHYSICS WITH ART IN THE FIELD OF EDUCATION. *GOLDEN BRAIN*, *1*(33), 144-147.

- 21. Jurakulov, S. Z. O., & Turdiboyev, H. (2023). ADVANCED STRATEGIES FOR LEARNING PHYSICS. *GOLDEN BRAIN*, *I*(33), 152-156.
- 22. Jurakulov, S. Z. O., & Nurboyev, O. (2023). LEVEL AND POSITION IN THE EDUCATIONAL FIELD OF PHYSICS. *GOLDEN BRAIN*, *1*(33), 157-161.
- 23. Jurakulov, S. (2023). PROPERTIES AND CHARACTERISTICS OF NUCLEAR ENERGY. Инновационные исследования в науке, 2(12), 35-39.
- 24. Jurakulov, S. (2023). ON THE RELATION OF METAPHYSICS TO PHYSICS. Академические исследования в современной науке, 2(27), 9-20.
- 25. Jurakulov, S. (2023). IMPACT OF THE MINING INDUSTRY ON PEOPLE AND THE ENVIRONMENT. Theoretical aspects in the formation of pedagogical sciences, 2(21), 143-150.
- 26. Jurakulov, S. (2023). CHANGES IN LANGUAGE DUE TO NEW PHYSICS. *Models and methods in modern science*, *2*(13), 77-87.
- 27. Jurakulov, S. (2023, December). RESEARCH THEORIES OF PHYSICS COURSES IN JAPAN. In *Международная конференция академических наук* (Vol. 2, No. 12, pp. 43-48).
- 28. Jurakulov, S. (2023). PHYSICAL-MECHANICAL PROPERTIES OF NA-KMS AND CARBAPOLL BASED GELS. *Development and innovations in science*, *2*(12), 65-70.
- 29. Jurakulov, S. Z., & Hamidov, E. (2023). YADRO ENERGIYASINING XOSSA VA XUSUSIYATLARI. *GOLDEN BRAIN*, 1(33), 182-186.
- 30. Jurakulov, S. Z., & Nurboyev, O. (2023). IN THE EDUCATIONAL FIELD OF PHYSICS LEVEL AND POSITION. *GOLDEN BRAIN*, *1*(33), 157-161.
- 31. Jurakulov, S. Z., & Turdiboyev, X. (2023). FIZIKA FANINI O 'RGANISHNING YUQORI DARAJADAGI STRATEGIYALAR. *GOLDEN BRAIN*, *1*(33), 152-156.
- 32. Jurakulov, S. Z., & Turdiboyev, X. (2023). TA'LIM SOHASIDA FIZIKANING SAN'AT BILAN ALOQALARI. *GOLDEN BRAIN*, 1(33), 144-147.
- 33. Jurakulov, S. Z., & Nurboyev, O. (2023). FIZIKA FANINING BO 'LIMLARINING RIVOJLANISHDAGIDAGI ASOSIY AHAMIYATI. *GOLDEN BRAIN*, *1*(33), 162-167.
- 34. ugli Jurakulov, S. Z. (2023). FIZIKA TA'LIMI MUVAFFAQIYATLI OLISH UCHUN STRATEGIYALAR. *Educational Research in Universal Sciences*, 2(14), 46-48.
- 35. qizi Latipova, S. S. (2023). BETA FUNKSIYA XOSSALARI VA BU FUNKSIYA YORDAMIDA TURLI MASALALARNI YECHISH. *GOLDEN BRAIN*, *1*(34), 66-76.

- 36. qizi Latipova, S. S. (2023). SOLVING THE INVERSE PROBLEM OF FINDING THE SOURCE FUNCTION IN FRACTIONAL ORDER EQUATIONS. International Multidisciplinary Journal for Research & Development, 10(12).
- 37. Latipova, S. S. (2023). SOLVING THE INVERSE PROBLEM OF FINDING THE SOURCE FUNCTION IN FRACTIONAL ORDER EQUATIONS. *Modern Scientific Research International Scientific Journal*, *1*(10), 13-23.
- 38. qizi Latipova, S. S. (2023). HEAT PHYSICAL MEANING AND ORIGIN OF DIFFUSION EQUATIONS. *International Multidisciplinary Journal for Research & Development*, 10(12).
- 39. daughter Latipova, S. S. (2023). HEAT PHYSICAL MEANING AND ORIGIN OF DIFFUSION EQUATIONS. *World of Scientific news in Science*, *1*(2), 163-176.
- 40. Shahnoza, L. (2023, March). KASR TARTIBLI TENGLAMALARDA MANBA VA BOSHLANGʻICH FUNKSIYANI ANIQLASH BOʻYICHA TESKARI MASALALAR. In "Conference on Universal Science Research 2023" (Vol. 1, No. 3, pp. 8-10).
- 41. qizi Latipova, S. S. (2023). RIMAN-LUIVILL KASR TARTIBLI INTEGRALI VA HOSILASIGA OID AYRIM MASALALARNING ISHLANISHI. *Educational Research in Universal Sciences*, 2(12), 216-220.
- 42. qizi Latipova, S. S. (2023). MITTAG-LIFFLER FUNKSIYASI VA UNI HISOBLASH USULLARI. *Educational Research in Universal Sciences*, 2(9), 238-244.
- 43. qizi Latipova, S. S. (2023). KASR TARTIBLI HOSILA TUSHUNCHASI. *SCHOLAR*, *1*(31), 263-269.