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THE OBSERVATION PROCESS AND THE UNIVERSE

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Do we know all about the Solar system

This is a topic about which we are certain we know it all. There is the Sun, almost a dozen of planets, more than a hundred of satellites, three belts … What is wrong then?

The first thing that attracts our attention is that some planets have many satellites (Jupiter, Saturn, Neptune), and some don't have a single satellite (Venus, Mercury).

The number of satellites orbiting around a planet is directly related to the mass of a planet and its rotation around its axis.

Small Pluto has a radius of 2 300 km, 0.002 of the Earth's mass; it has several satellites, one of which is really big, compared to Pluto. Pluto makes a single rotation around its axis in 6.4 days!

Mercury has a radius of 4 880 km, 0.055 of the Earth's mass; it doesn't have any satellites and neither does Venus, which radius is 12 104 km and the mass is 0.82 (!) of the Earth's mass. What they have in common is the lack of rotation (their rotation around their axes is approximately the same as their rotation around the Sun). Jupiter is the greatest planet, with a radius of 142 984 km, 317.8 of the Earth's mass and it makes a single rotation around its axis in 0.41 days. It has an impressive mass, great speed of rotation and, according to that, the greatest number of satellites, and it has rings, too. A radius of Saturn is smaller, 120 500 km, its mass is 95.2 of the Earth's mass and it makes a single rotation around its axis in 0.43 days; that is why it has lesser number of satellites and beautiful rings.

The Sun (it is only a celestial object and must abide the laws of physics) has a radius of 1 392 000 km, its mass is 330 000 of the Earth's mass and it makes 99.86 % of the Solar system mass total. It makes a single rotation around its axis in ~26 days at the equatorial belt and 33.5 in polar belts. Even though its mass is great, its relatively slow rotation is the reason that Sun has only 0.14% of the captured objects in its orbit.
The other planets are also in accordance with the conditions stated above.

Temperature of the objects is the second thing. Besides Sun, more four objects have somewhat significant own temperature, i.e., they produce it on their own. These are:

Venus, Earth, Jupiter and Neptune. Jupiter's satellite Io can also be adjoined to this company.
Generally, all objects that have 10% and more of the Sun's mass are solar objects, i.e., they produce their own temperature. The objects similar to the masses of Io, Earth, Venus, due to the influence of the electromagnetic forces from Sun or Jupiter (Io), have a melted core, because their mass is sufficient for that in these conditions. When Venus and Earth double their masses, they would become solar objects with their masses far below the needed 10% of the Sun's mass. Jupiter and Neptune emit twice the energy they receive from the Sun, which is in accordance to their size. They can obtain that only by producing their own temperature, which is a fact that implies the already melted cores of these planets.

The third thing is the fuel they burn. What fuel: petrol, fusion energy, fission energy? None of these. If this was the case, we would have polluted, radioactive universe and we would be immune to all kinds of radiation, but we are not. The core of Earth is melted and hot, but without a trace of radioactivity. With all these volcanoes, we should have an environment similar to that inside the core of a nuclear plant, but we don't. Obviously, solar objects don't burn anything similar or anything based on these principles.
By the mass increase of 10% of the Sun's mass, the objects become solar objects, but also do smaller objects, under right conditions. As an object increases in mass, by collecting other objects, such as comets, meteorites, asteroids, etc, a pressure inside it also grows and after right conditions are fulfilled, the particles begin with a (significant) work. Due to attraction, repulsion, rotation, a friction is being created and its consequence is the increasing temperature. Therefore, the increase of mass over the critical point leads to the increase of temperature. Temperature is also affected by rotation; the faster the rotation, the hotter the objects are.

The Oort cloud. Speed of light is not the limit!

A hypothesis appeared from the astronomical observations of the other stellar systems that, in its outer regions, the Solar system may also have a gaseous belt. That assumption is even today very often taken as hypothetical, because there is not enough evidence or visible proofs to support it. The objects in the Oort cloud are small; while the rest of the matter is gas (with the use of telescopes, we can barely see Pluto and other bigger or smaller objects in the Kuiper belt, which is significantly closer to us).

The existence of that belt is being proven by the comets, incoming into the interior part of the universe, because their trajectories are outside the Kuiper belt.

The existence of the Oort cloud gives us the opportunity to verify if the movement of matter on the most distant points from the center (Sun) is generally faster and what are the reasons for it.
When the galaxies are a subject matter, that fact was already confirmed by observation. When talking about universe, we know that the most distant objects have the greatest

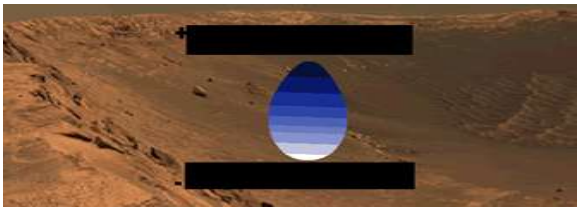
speed; accordingly, the Oort cloud should have a greater speed of rotation around Sun. The speed of Mercury is Ø 48 km/s, Earth 29.8., Saturn 9.6. and Pluto 4.75. The cosmic speed decreases with the increase of their distance to Sun: Makemake 4.4, Eris 3.43, Sedna 1.04, Oreus 0.5, Varuna 0.38, etc. With the increase of distance, the average temperature of the objects is decreasing; the average temperature of the objects in the Kuiper belt ranges from 30 to 50°K, while the average temperature of the Oort cloud is estimated to range from 4 to 12°K.

The objects and comets incoming from the Oort cloud have the average speed greater than those in the Kuiper belt (the data state the average speed of 10 km/s), while a part of them have the speeds greater than all other objects (Hale-Bopp 52.5, Halley's comet 66, Shoemaker-Levy hit into Jupiter by the speed of ~58 km/s).
Therefore, even though the distance increases, and the speed should be decreasing, it increases drastically. The main reason for this increase is the low temperature that exists in the Oort cloud.
A turning point of the another kind of behavior is the temperature fall below -259°C, i.e., below the
melting point of hydrogen (H2). The objects which start off from the Oort cloud towards the interior part of the Solar system have great starting speeds, which with time (after a number of cycles) decrease.
Low temperatures, below 12°K, make it possible for the objects to achieve great speeds – even though their gravitational forces are weak – speeds that, besides the Oort cloud, exist on the edge of galaxies, as well as on the outer edge of universe.

When we master the technology of low temperatures, we would be able to explore successfully our system. It is necessary to cover the spacecraft plating with the materials which could with magnetization lower the temperature of the spacecraft plating below -260°C (PrNi5 is one of these materials that has this ability, through to superconductivity, i.e., it can be cooled down below 1°K) and when we master the temperatures below the melting point of helium (He), which is -272,14°C or 1°K, we would be able to achieve the speeds greater than the speed of radiation (light) and to start exploring the neighboring stellar systems. The proof is accelerating Voyager.

The atoms – what are they

This is a subject about which everything is known. The atom (of hydrogen, H) is a nucleus, consisting of a proton , as well as an electron which circles around the nucleus, thus creating an electron cloud.



The atom of hydrogen between powerful magnets (quantum physics US)

The protons and neutrons, as well as the electrons, which can all exist independently under certain conditions, have been isolated in laboratories. So, where is the problem?

It has been concluded by splitting the protons (as well as neutrons and electrons) in the particle colliders that a proton consists of the smaller particles, named quarks (three quarks for Muster Mark). The first problems appeared at this point. A proton would not split into three quarks, practically without an exception (only a few exceptions out of the billions of events have occurred). When a proton is bombarded by an electron in the particle colliders, the three peaks appear (+, - and 0) and these are the quarks. I will now deliberately evade the discussions about the entire series of the so-called particles, which have a very short life span (Lambda-Hyperion, 2.51×10^{-10} sec., sigma-hyperion +0.81, - 1.65×10^{-10} sec., and 0 ~10^{-14}sec., and so on – only the muons have a somewhat longer existence, $2{,}2 \times 10^{-6}$ sec.). The reasons are obviously clear, here we don't talk about the independently-occurring particles and therefore they can't join the interrelations in nature.

The most important fact obtained by the colliders is the existence of the stable particles (neutrino, electron, proton with a variation of neutron and photon-energy) and that they participate in the processes of creation. The proton charge can, with the help of muons, be interpreted as bipolar, because the positive charge of Earth attracts only those muons occurring in the collisions of radiation waves with the particles inside the atmosphere of Earth (the disintegration of particles).

The next important fact is that they (protons and neutrons) at the end always split, after a few pauses, into electrons, neutrinos and photons (energy) and the electrons into neutrinos.

Bipolarity of particles (I will not go further from hydrogen here) is discovered through the non-existence of the free particles – they only exist joined into pairs (H_2). A particle that has only a positive (or negative) charge – or in other words, a single charge – can not attract another particle with a similar value. Only the opposite (different) charges attract: the positive part of a hydrogen particle attracts the negative part of another hydrogen particle and then they exist as a pair. Why are these not the electrons? In that case, the joining would end as proton (nucleus) with an electron, or more of them, and there would not be the need to join together proton with another proton.

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Since a proton is by its mass 1 836 times bigger than an electron, it is obvious that they join together to create a larger quantity of the negative charge – that value is above the mass (or charge) of 90 electrons.

By observing the split of proton we can conclude that it consists of a series of neutrinos, with energy as a carrier. It represents a thread made by a few million of these particles and a large number of electrons. That thread is huddled up because of its length and the imbalance of charges at its ends. It has a dominantly positive charge, with an insignificant negative charge. Namely this imbalance is a basis of the particle joining inside the visible matter. The electrons and neutrinos constantly circle around it, because of its dominantly positive charge. By joining of a proton with these particles (two electrons and two neutrinos, with some energy), a neutron is created. It is not permanently stable – only for some 17 minutes. The next round of joining is the opening of the threads of neutrons and protons and in that way forming the structures of the following, more complex atoms.

The forming of neutrino itself (a matter with charge) occurs as a result of different speeds of energy movement in the rotation of the universe. The speeds increase from the center of universe towards its surface. A friction is caused by the work of particles, which is similar to the ionization of particles inside the atmosphere of Earth, occurring at the times of turbulences and different drifts.

The joining (growing) is constant and it has an upper level of sustainability in a natural surrounding (from polonium to uranium). Even though the joining occurs continuously, the particles can not achieve the higher value than this. That the joining occurs continuously, we can tell by the radiation (dispersal) of the biggest atoms. It is a process of balancing, achieved by discharging the surplus, made by the new incoming matter (smaller particles).

The age of some celestial objects (planets, satellites, asteroids…) is measured by the higher representation of the upper elements, those with higher quantities of protons and neutrons inside the atoms. That is only one factor, though. Therefore, we can with certainty expect that these elements don't occur in significant quantities (related to the mass of an object) on the Moon, on Mars, on the asteroids, on the comets…

Why is the Universe dark?

The universe is a vast space that is not very easy to illuminate, though, because the stellar objects are very far from each other.

Nevertheless, a basic problem is not the vast space, but the light itself. The light comes from the Sun to the planets and to all the other objects of our system. Since the intensity of light decreases with the increase of distance, already behind Pluto it is rather dark. When we gaze at the sky at night, we can easily conclude that the range of light is very long (Andromeda is seen with bare eyes, even though it is more than 2 million of light-years far from us). Satellites and telescopes can detect light that has been travelling for more than 13 billion of light-years.

It is estimated there are some 200 billion of stars in our galaxy only. So many stars that emit light to the endless distances, and yet, we barely have some light. It is enough to leave the atmosphere of Earth to find yourself in the darkness. That is a paradox of the conventional definitions of light. We can see that the Moon reflects the light coming from the Sun and then it comes to Earth, but it is pitch dark between these objects. Maybe there are no photons, which are, namely, light itself, but the light from the Sun reaches Pluto, too, and travels even further into the space – how come it does not illuminate among planets and other objects, but only on their surfaces? It seems that light must be some kind of a magician or some unnatural force when its photons illuminate at some places and don't illuminate at others. The photons lurk outside the atmosphere; they stalk us from the dark and you are finished unless you have good protective equipment (a protective suit, not a sun lotion).

By the definition, a photon should be the light and the carrier of heat, which is a fact that becomes obvious the moment you get out to the sunlight. Then how come that it is warmer closer to the ground than in the mountains or outside the atmosphere? If a countless quantity of them sets out from the surface of Sun, why can they only be seen on the objects, but not up, in "the vacuum?" Why they don't illuminate there, too?

A photon is only another delusion, firmly set in the foundations of physics. Obviously, something else is here present because the term "photon", both as a particle or a particle and wave, does not correspond to the truth, since the photon does not exist. If we compare it to the light, than the light itself would not exist and therefore, the speed of light would not exist either. There are only waves, matter (the visible one) and the event, occurring in the collisions of waves and matter, the product of which is known as the light. The speed of light exists as long as there is matter and when the matter is gone, the light is gone, too, and if there is no light, it is pointless to talk about its speed.

The waves in the collision with the particles (matter) by their blows (work) create friction among the particles, which manifests as the light and heat. Dark matter, which exists among the celestial objects, even though it carries a wave, it decreases its intensity proportionally to the distance increase. It is almost a classical situation: if vacuum really existed, the intensity would not be decreased because there would be nothing to decrease it. The further the wave travels, the weaker it gets; that is why there is a sunset and a very cold weather on Pluto. A lack of atmosphere is another disadvantage to it. Coldness is a characteristic of the dark matter. The lower intensity of the waves, the lower is the temperature, too; that is why the temperature in the Oort cloud ranges from 4 to 12°K and that of the background radiation, which comes from the surface of the universe, is below 3°K.

Since there is no charge in the dark matter, it can not support or produce friction and, as a consequence, neither light nor heat. That is why the universe is dark and cold – it is a basic state of matter which has a mass, but does not have a charge.

Why is the Universe cold?

Traveling outside the atmosphere of Earth without the special equipment for the protection against cold would be very unwise. There is very cold and very inhospitable out there. The lowest temperatures on the poles of Earth are very pleasurable, compared to the conditions outside the atmosphere. So, why is it so pleasant and warm here on Earth and so cold in the area just outside Earth, which is, figuratively speaking, almost within a hand's reach? These temperatures (around 100° K) can be measured only on places where there is no radiation, like for example, on the dark side of the Moon. Warmth and light are been created by the radiation waves (of Sun – in our system) when they collide with matter (visible matter, i.e. atoms). Matter is mostly incorporated into the cosmic objects, while there is almost none of it outside their atmospheres. When there is no (visible) matter, there is also no radiation colliding with it and, as a consequence, there is no warmth or light either.

However, it is not all that simple. Already here, in our Solar system, there is a clear law of nature that shows us that the matter outside the cosmic objects (i.e. invisible matter and energy) also reacts with radiation.

It can not be neglected that elementary matter (invisible matter and energy) warms up, too, for some 100°K! It is less cold closer to Sun; ~ 100°K on the dark side of Mercury. It gets colder in the space further away; it is around 30°K on the dark side of Pluto, while at the end of the system, in the Oort cloud, it is ~4°K (~-269°C). At the end of Universe, it is 2,4 – 2,7°K. Even if we did not know that there was something out there (outside the membrane, in the so-called "empty" space), from this we would be able to deduce that there was something following the laws, similar to these of the visible matter. It can also be confirmed by the constant decrease of power or intensity of the waves, with the increase of distance from the object that emits them.

All these facts confirm that this is a kind of matter, too, and it can not be denied of similarities with the visible matter, but there are also some differences between them. The only impossible thing, when discussing these facts, is connecting our space with that empty space. Empty space can not follow the same laws like those of the visible matter; it is an empty space, in which there are no laws. It can only transfer an event or action further, without affecting them in any way.

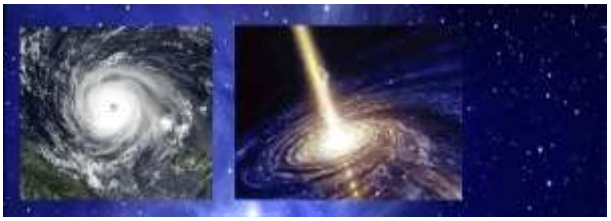
The characteristic of the visible matter (which does not possess its own energy source or hot core) and invisible one, too, is that they are increasingly colder if the amount, power and intensity of incoming radiation decreases. Warmth and light are typical of the visible matter, and the significant reduction of cold is typical of the invisible matter and energy, when influenced by the radiation waves.

By applying the analogy of the ascending sequence of events, the more we are distanced from the source of radiation, the lower are the temperatures. Between the multi-universes, they are a bit closer to the absolute zero. The temperatures decrease as the wholes grow. An endlessly large volumetric belt of energy is expanding after the last ascending whole and the temperature there is absolute zero.

By the analogy, inside this belt there is an endless quantity of the wholes, similar to that one, but it is very likely that the whole with the absolute zero temperature in it could be the outer and the last whole in the hierarchy that goes further into the 3-D infinity (at least the infinity as humankind understands it).

Observing the Quasars through rotation

I have been evading this problem for a long time because the events were too far, until the quasars were found relatively close in the neighborhood (only a few million of light-years away).



A cyclone a blazar

Almost all quasars have been situated in the centers of elliptic galaxies and their characteristic is an intensive glow. Blazars glow a bit less intensive because the axis of the galaxy center is not placed vertically to us, but is inclined to the side, which makes the glow look less bright. These events are related to the phenomena that do not belong to physics: black holes, pulsars or neutron stars. When something does not belong to physics, then it is a serious problem. Already during the 1990-ties, the "colored" dwarf stars (i.e. white, red and brown ones) were also given supernatural values (a spoonful of their matter was claimed to weigh more than the Himalayas, and so on; they were also given unprecedented gravitational values and much more) and later they were proclaimed the unfinished stars (which is also incorrect, if the context of analysis is taken into consideration). These horrible super-forces now exist in "the neutron stars and black holes." The common feature of quasars, blazars, neutron stars (pulsars) and black holes is rotation. The omnipresent rotation, which is by itself a very interesting event, is situated into the impossible surroundings, instead of being observed as an independent central event.

From the astronomic observations the rotation can be divided into these categories: slow cyclones (they exist on the poles of Sun and similar stars of the slow rotation, as well as on some gas giants); fast cyclones (the shiny stars with a high speed rotation; also, the centers of spiral galaxies); very fast cyclones (elliptical galaxies and so-called pulsars or neutron stars). The faster the rotation, the stronger the gravitational forces are. Through the observation of a pulsar rotation we found out that it makes a single turn in a period from a millisecond to a few seconds or more. That clearly shows us the power and speed of a cyclone.

Based on the astronomical observations and research we can predict the diameter of the eye of a cyclone to be from 20 km (in pulsars) to more than a million km (in the centers of galaxies). When the eye of a cyclone, with a diameter of 5-6 km, makes a turn in a second, it is a common speed of some comets, asteroids, etc. and it is very unlikely to expect a spectacular light show. But, when a cyclone, with a diameter of 1000 km or more, makes a turn in a second, the strong forces are created, which by the particles' friction create a light effect. A cyclone is a spiral thread, up to 30 000 of light years in length. The larger the speed of a cyclone, the stronger the friction inside the eye is. Also, the more intensive is the glow and more significant are different kinds of radiation. A visible trace that is related to the released matter is only the thrust of radiation waves from the eye of a cyclone on the gas and matter that exist outside of that event. From the cyclone research on Earth we found out that it sucks the matter in, but it does not release it through its eye. Therefore, we can with certainty reject the idea of releasing matter from the eye of a cyclone.

If there were black holes in the centers of galaxies, it would be completely unclear how they glow, since light can not escape from the black holes. Also, there is a question, how they glow so intensively through the 15 000 of light years thick layer of matter, when it is known that there is not a single searchlight on Earth that could illuminate through a kilometer thick fog (dust and other matter need not even be discussed at all in this sense).

When there is a cyclone (a thread) in the center of a galaxy, it follows the already known laws of physics.

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