# Weitter Duckss's Theory of the Universe

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The Universe is the main theme, which is discussed in this paper. The objectives are creating the sequence of relations or connections of two or more relations of evidence (for example, mass – radius) to create new measurable values. The observation starts from the obvious (red stars make up to 76,45% of all stars in our galaxy) and namely such importance is given to that matter. Making conclusions based on some spectacular, but minor values, is avoided (for example, shiny blue stars make only 0,00003% from the total quantity of the stars in our galaxy).

The analysis of every topic is based on the big totalities (the total number of galaxies, the total number of stars in the Milky Way), on the regularities that apply to all observed units – with the exceptions included – or phenomena related to all objects, avoiding the partial or individual separated parts of the totality. The Universe is here analyzed through the formation of matter, its growth and disintegration. Rotation is introduced as a feature that must be addressed to; it creates the relations between the neighboring and distant objects. The age of the Universe is analyzed through the approximate minimal assessment of time needed for some object to reach a particular stage by gathering matter, for example: a time needed to create a cluster of stars, consisting of a few tens of thousands of stars in a single place, due to the gravitational force and rotation. The analysis starts from the assessment that the majority of notions and evidence are generally familiar to vast majority of readers, therefore no particular links, leading to the definitions of a star, a galaxy, rotation, blue and red spectral shift, etc., are cited here. The notions such as gravity, tidal forces, rotation, etc., do not follow officially accepted definitions and they often differ structurally; for example, gravity is a sum of effects of the gravitational force and rotation, due to which EM forces also rotate and thus influence the objects within the orbit, but also further away, until the limits of the gravitational force are reached. The component of time also needs to be acknowledged here. The hierarchy that follows generally and widely accepted rules is not used within this paper.

The whole paper is an abstract, a material that contains no endless explanations. Only minimal quantity of needed evidence are introduced here, as a result of the experience gained in many discussions on several forums in the Republic of Croatia, United States (**2**) and Russian Federation (**2**), etc. These discussions have contributed to the quality of this paper and hereby I thank to all who have participated in these discussions and to the visitors (there were more than 100 000 visits to my themes on portals with over 1 000 comments, even without the data for my own web-site).

## Light

I will start with something easy and generally accepted – a nice theme, of which we think we know everything to the smallest detail and we take it as an undisputable fact. Light. Why there is light on Earth and outside Earth there is a completely dark space?

We know it comes from Sun (a bit of it comes from the other stars, too) and that Sun is the light-giving object. The question is, how it can give light to us if already 100 km outside the atmosphere of Earth there is no light? The same thing happens on Moon or Mercury, with the only difference that there is dark space on them immediately next to the surface, because they do not have an atmosphere.

Note: all pictures, including these here too, are taken from the internet

When observing the arrival of a comet, initially we can see only the object and the dark around it. Light starts to appear around it when the object starts releasing the particles which create the tail of the comet. The common thing to Earth and the comets is matter (particles). [1,2]

The evidence are so obvious here that no explanation is needed (only visible matter is shining). The only thing that requires an explanation is, why matter is shining, which makes light to appear. The example can be made out of heat spreading from hot objects. A hot object is emitting waves, which we perceive as heat (there are no photons, "heatons", etc.). Microwave oven is the most obvious example. There is no heat source, only waves, but in the collision of waves and matter, a meal becomes warm and it can also get burned. Nothing is needed between a star (Sun) and an object (the atmosphere of Earth), except waves or radiation. Constant waves' blows warm up the visible matter, which starts shining. Now it is clear why the temperature on the light side of Moon reaches 390°K (about +120°C), while on the dark side it is only 100°K (about -170°C). No photons are needed as there is by far no valid explanation that they really represent light or that the light from Sun is traveling to Earth and other objects.

There is also the speed of light, which is also considered to be an undisputable fact. How can light have a defined speed, when there is no light between the objects in the space? If there was some, it would be a light space between Sun and Earth, not a dark one. There is only the speed of radiation or waves. Dawn, or morning light, appears much earlier than the actual appearance of Sun (this is called

diffraction or secondary effects of wave blows that transfer sideways from the collision of waves and matter; this occurrence is not present on Moon and objects with no atmosphere).

**Heated objects (stars)**

Let's stay with light and convince ourselves why the objects (stars) are shining, i.e., why they become heated objects. They start shining, depending on a few factors (are they independent objects or they are orbiting around a star). The objects that are orbiting start shining already when they reach the size of Earth, even earlier. In our system – beside Sun – Earth and Venus are shining and there are increased levels of radiation on Jupiter and Neptune. If you have visited an active volcano, or have been near one (it is calculated there are some 500 active volcanoes[3]), or have seen a TV show about volcanoes, you can immediately realize that Earth is shining or emitting its own radiation. Besides, it is known that it is very hot under the crust of Earth, i.e., there is a melted matter ("the analyses imply the temperatrure of the Earth's core is about 5700 K and the pressure is variable, around 330-360 gigapascals"[4])

The claims that there is a radioactive disintegration need to be dismissed as incredible; more than half a million of people live only around Vesuvius in Italy and they are not irradiated. Lava can be hot, but never radioactive. The conduct of matter in blast furnaces for melting iron is known; therefore, it is also known that hot mass is dislocating, which means that radioactive elements should be equally present in lava now and 4,5 billion of years earlier – but, they are not "(Ultramafic (picritic): SiO2 <45%, Fe-Mg> 8% and up to 32% MgO, temperature up to 1500°C))" [5]

The mass which creates pressure and the effects of the gravitational forces of Sun are responsible for the melted core. That is the reason why Venus is more warm than Earth and has more active volcanoes, although it is smaller than Earth[6]. Therefore, there are convincing and verifiable evidence for the objects to shine. They start shining when they reach a sufficient mass if they are in a distant orbit or are independent, or when they reach a sufficient mass and the effects of the gravitational forces if they are closer to the central object (the most often, to a star). Earlier, people were taught that for an object to become a star, it would be sufficient to reach 10% of Sun's mass. Now, the ever-improving technology is providing more and more new evidence to change that mass level. That mass level has become even more blurred through the discovery of exoplanets and more detailed observation of brown dwarfs, because the mass level was unable to provide the needed answers[7]. By observing two adjacent objects (so-called binary objects), like Sun-Venus, Earth-Moon, etc, the existence of a strong activity of gravitational forces, combined with the movement of objects in an orbit and rotation of one or both objects were discovered. (So-called binary system is a rarity; it rarely happens so that there are only two objects in a relation, so this term will be used instead of two concrete objects, like Pluto and Charon, although Pluto has four more satellites.) The speed of rotation of a central object also influences the reduction of mass, for an object to start shining. If there are two stars with the same mass and different speeds of rotation, the star that rotates faster is warmer. These effects are automatically transferred to the orbiting object. It goes the same for such an orbiting object. The faster rotation

creates more matter friction inside the object, which results in a higher temperature and stronger magnetic field (if the object has an independent rotation).

It is enough to observe the mass of an object, its relation to other objects, the rotation of an object as well as the rotation of a central object, the composition of an object and the orbital distance to make a valid estimate for every object, without the need for nuclear fusions, fissions and matter combustion.

**Rotation of an object and its far-reaching effects**

The effects of the rotation could be analyzed through the rotation of an object and total rotational effects of a smaller or larger system (Universe). Nevertheless, it is not good to divide these two features, because they originate one from the other and influence each other inseparably. It will not be analyzed here, what it had been like earlier and how it all had been developing, but instead, the analysis of the Universe and its objects as they are right now and the omnipresent relations within it.

All the objects, observed by the astronomers, are moving, rotating and creating interrelations. The gravitational forces define the direction or the shortest way from one object to the other, while the movement of a central object and its rotation bend and prolong the way of approaching. If an object is approaching vertically to an equator and movement direction of a central object (which, by definition, needs to be a larger object, which can dictate the rules), the gravitational forces need to adjust the direction of the created movement length of a central object in every single point, thus changing the direction slowly to a curve. At the final stage, the rotations of both objects, with the speed included, place the incoming object into the orbit. If a classical gravitational force in isolated conditions is to be analyzed, the direction would never be prompted to change into an ellipse; there would always be the collision, like in the example of an apple and Earth. To ascribe the formation of orbit to the speed of an incoming object is simply not satisfying, because the classical gravity only attracts an object independently of its speed. The creation of orbit needs to include the rotations of objects, as well as the movement of a star in the orbit inside the galaxy and the movement of galaxy inside the cluster of galaxies.

Rotation can be analyzed in the broader way, too. Just like with the magnets, it is not only an object that rotates – but its gravitational forces rotate, too. For example, if there is an eruption that makes a large emission of radiation (waves), which last equally or more than a single rotation, then radiation also rotates in the direction of rotation and its constant blows correct the movement direction of an object. This needs to be analyzed also in the relation of the size differences of two objects. Sun possesses 99.86% of the whole system's mass and it influences with a significant, consequential force on a small object.

Opposite to the process of rotation there is the approaching of an object to the poles of a central object, where there are no orbits created, but only collisions of the incoming objects with the central object. These objects also have a speed, just as the objects that approach straight or with an inclination towards the equator do, but these speeds neither create orbits, nor there are observations to support such claims. If there is no rotation, there is also no orbit, no matter what the speed of the incoming object is.

Besides rotation around the axis, every object also has an orbital movement direction: a star system is rotating around a galaxy, a galaxy is rotating around a cluster of galaxies, while these objects are rotating around the Universe. By observing the stars in our galaxy, it is easily noticed there are bright and hot stars on one side and red, colder stars on the other. Also, bright stars are rotating fast, while red stars are rotating slower and are colder. There is a regularity that red stars make up to ¾ (76,45%) of stars in our galaxy, while blue stars (or, "O" type stars), which are rotating very fast, make up to only 0,00003% [8]. If published articles are consulted, an opposite ratio is found: everyone is writing about the shiny, colossal stars. Insufficient information are there about the main feature of our galaxy – smaller, red stars. It should never be forgotten that, besides red color, smaller stars could also be brown, yellow and white. White dwarfs are very fast-rotating and very hot stars.

A central object's speed of rotation is directly related to the orbital speed of planets and their total mass. If two objects have the same mass, but different speeds of rotation, the object with the faster rotation has more objects in the orbits, beside a smaller radius, higher temperature, stronger superficial gravity. Faster and very fast rotations also create more significant asteroid belt and gas disk. This is the only reason why Pluto has no rings, because his slow rotation (6,4 days) – with a small mass – is insufficient to create rings; gas, dust and smaller objects end up on the planet or its satellites. The objects without an independent rotation (such as Venus, Mercury, etc.) can't direct the other objects into their gravitational field. The same principle goes for the objects with rotation when an incoming object arrives to the polar region, where only the gravitational force exist.

**"Ether or vacuum"**

Edmond Halley → „gravitational force between Sun and the planets is decreasing with the square distance“. The intensity or power of radiation conducts similarly to the requirements of this law. If the space is a vacuum, the waves, coming from Sun, are not obliged to abide the law of decreasing force. This should apply only to the existence of matter or obstacles. The following objects have the stated values of temperature on their dark sides: Mercury ~100°K, Europa ~50°K, Pluto ~33°K and in the Oort cloud only 4°K (some sources suggest the range of 2 – 12°K). By observing the night sky it can be seen that the power of waves, incoming from the stars, loses its intensity while traveling the distance to Earth. If vacuum was present in the space, the space would have the same temperature. It is clear that the space which is closer to a source has a significant temperature, related to that one in the Oort cloud. The space is getting heated, but not as a visible matter, and the evidence of weakening the intensity of light and decreasing of temperature suggest beyond any doubt that there is no vacuum. The decrease of intensity is not equal to the activity of gravity, which indicates there is a sort of matter involved. The usual anomalies are recorded closer to Sun. The temperature on the dark side of Mercury (~100°K) is lower than the one on Mars (~130°K) and there is a similar anomaly on Earth, in the sense of thermosphere. Nevertheless, the fact that waves decrease with distance all the way till 4°K in the Oort cloud can't be disputed. It is clear that the space closer to a star is getting heated up to 130°K. This is not the conduct manner of the empty space that does not interact with radiation. The same situation is with larger systems, galaxies. On the edge of galaxy the temperature is reduced below 3°K. The further the space from the source of waves (radiation) is, the lower the temperature gets and it tends to reach

the absolute zero (the temperature of background radiation is 2,7 K). When the next totality (Multi-Universe) will become measurable, the temperature on its edges would be around 1° K.

Let's also mention here the law of low temperatures: when temperature lowers below the boiling point of helium (4,226°K) the objects start accelerating independently of the reduced gravitational effects, which can be seen with the Oort cloud, the objects at the edge of galaxies and with the sudden speeding up of Voyager 1 and 2.

The feature of the outer space is reacting to waves, the ability to get heated and – in a particular way – to conduct itself similarly to visible matter. The relation is this: visible matter makes up to 5% of the Universe, while the rest belongs to the space filled with dark matter. It is not appropriate to look for the 95% of system in the same way as if it would be done for a millionth part of it.

Conclusion: space is not empty, it makes possible for waves (radiation) to move at the speed of 300 000 km/sec., but at the same time it reduces the intensity and power of waves, which is good, because weakened radiation is unable to cause damage to the neighboring systems.

## Functioning of the Universe

The Universe is based on the law of attraction. This law is acting under difficult conditions, movements and rotations of objects and systems inside the Universe. If objects share the same orbit or trajectory of movement, they attract each other exclusively with gravitational force. The joining of objects takes place under these conditions (the expression "collision of objects" should not be used at this place). The same laws should apply to planets and galaxies, as well as to gas and dust. The gathering of matter follows the law of attraction, but here is also the upper sustainable level (limit), which can be supported by the conditions in which the process takes place, i.e., natural conditions. Matter has a constant tendency to gather up, due to gravitational force (no matter of the natural sustainability) and a particle, object or system reject the surplus. A particle is doing it by rejecting smaller parts: electrons, protons, neutrons or helium. The process is generally accompanied by radioactive radiation. Forces of gravity make all objects to be interrelated to some extent, in a certain way they "feel" each other.

When an object rotates, it gathers a smaller quantity of other objects that rotate around it (Sun gathers 0,14 % of its total mass). Rotation creates stellar systems, spherical clusters, galaxies, clusters of galaxies, the Universe, etc. There is a smaller part of disorganized totalities that will at the end become organized or join some unsaturated system.

When a gaseous or liquid object rotates, whirls are created at their poles and in time they may grow into cyclones. On the objects that have whirls, matter on their poles is rotating slower than the matter on their equators; it is the opposite with the cyclones. Supernovae are created when an object of the sufficient size hits into the opening (an eye) of a cyclone or a faster and deeper whirl, penetrating deeper into a star and exploding there, which makes a triggering event to create a supernova. The evidence claim that white and blue stars explode independently of their mass – white dwarfs explode just like white or blue giants – but nothing similar has been related to yellow and red stars, which rotate slower and their whirls are not as deep. There is only a very small part of supernovae, related to the

total quantity of stars, since there is also a very small part of white and blue stars inside our galaxy. Blue stars make up to "0,0003%; blue-white stars 0,13%; white stars 0,6% and yellow-white stars 3%" (Wikipedia). That makes less than 4% of candidates for the creation of potential supernovae. That fact makes the minor number of supernovae remnants justified; there are only a few dozens of them in the whole galaxy (i.e., related to 200-400 billion of stars). Having analyzed this relation, it becomes pointless to talk too much about the supernovae, because their minor quantity can not influence the creation of heavier elements in galaxy at all, especially when having in mind that a majority of matter undergoes the process of disintegration during the explosion of a star.

When analyzing the Solar system, it can be deducted that on Earth there is the greatest variety of elements, different in terms of mass. It can also be concluded by observing the objects inside this galaxy that hot objects with lower temperatures have a greater part of heavier elements than shiny, hot stars; in particular, brown dwarfs. There are two ways in one process. The first of them claims that heavier and diverse elements and more significant atmosphere are being created due to higher temperatures (the melted interiority of an object), more frequent geological processes, the change of day and night (due to rotation) and significantly colder polar regions than the rest of an object (in this way $CH_4$ is being crystallized from the atmosphere of Titan, the satellite of Saturn, and removed from the atmosphere). The insufficience of a particular factor negatively influences the variety of creation of the elements (the effects of the lack of rotation are visible on Venus, Io, etc.). The other way claims there is the disintegration of elements. High temperatures disintegrate elements. Both of these ways exist on Earth. The interiority of Earth has a lesser variety and quantity of heavier elements. The composition of magma and lava confirms that; there are no lead, gold, uranium, etc. in it. There are mostly "silica, aluminum, potassium, sodium and calcium" (Wikipedia) with a small amount of the compounds of iron. With the increase of temperature, the variety of elements decreases; that way, the stars consist of hydrogen, helium and a very small part (up to 2%) of the other elements. "Sun generally consists of the chemical elements of hydrogen and helium; they respectively make up to 74,9% and 23,8% of the mass of Sun in the photosphere and all the heavier elements, in astronomy known as metals, make up less than 2% of the mass, including oxygen (around 1% of the mass of Sun), carbon (0,3%), neon (0,2%), iron (0,2%)" (Wikipedia).

When analyzing the particle of hydrogen ($H_2$), the smaller particles (electrons and neutrino) can here be exluded from the main process of creating the more complex particles. Electrons and neutrino participate in creating protons and neutrons (or, heavy protons). The reason for it is obvious, a proton needs the relation with another proton, because smaller particles are unable to keep it stable and in a stable bond. The other reason is that in the Universe the cores of particles exist without the relation to electrons, as it is on Earth. The results of particle collisions in accelerators prove that a proton disintegrates after a few short periods, called particles, into electrons and neutrino and electrons disintegrate into neutrino. Energy is omnipresent – even the smallest particles are made of it. This automatically proves that a particle of electron consists of a large quantity of neutrino and a particle of proton (hydrogen) consists of the combination of electrons and neutrino. The relation of $H_2$ proves the existence of positive and negative charge of a proton. The disbalance of charge (about 5%, which is the quantity expressed by weak hydrogen bond) with the existence of two sorts of charge is responsible for

the process of creating, growing and gathering matter. Particles with the same sort of charge repulse each other (electron and neutrino also possess two poles of charge). A proton itself consists of a large quantity of smaller particles which together create a string or thread with two different charges on its ends, which attract each other and, when joining, they create a curled up loop with a positive, negative and neutral pole. They are all clearly noticed when electrons collide with a proton (also known as "Three quarks for Muster Mark"). A thread that is connected gets opened up if there is enough charge and then it can join into the new relation if the conditions are appropriate. That is the way how an interwoven structure of more complex atoms is created. It gives a simple answer to the question, why two or three atoms with the same atomic mass differ utterly (argon, potassium and calcium, etc.) and exist in different aggregate states. The same goes for any pair of the neighboring elements (fluorine – neon, tellurium – iodine, etc.). The isotopes of elements also need to be mentioned here; they additionally confirm this way of creating the particles. Joining and growing of particles goes on even when a particle reaches its upper limits of natural sustainability, due to which a particle rejects the surplus of matter together with radioactive radiation. The same goes for the lower elements (who have irregular structures or the irregular ratio of protons and heavy protons), whose structure can not bear further growth (the system undergoes self-adaptations to achieve the sustainable state).

The age of an object and system is determined through the time needed for a certain mass to be collected and formed as an object in given conditions, as well as for that object to get attracted into a system. An initial value should be a small asteroid, which is estimated to be 4,5 billion of years old, the time which should roughly be enough for the gas particles to join into dust and form an object of ½ kg of weight. Age is not to be measured by measuring distance. The quantity of 13,7(8) billion of light-years, which is the distance to the most distant object in the Universe, is the length by which a circumference of the Universe is determined, with the correction of movement of the most distant objects, which is 270.000 km/sec. The Universe makes a single circle (rotation) in ~94,5 billion of years. Its disk-like appearance and enormous outer speed point out at the vast number of circles made to this day. Rotation gives the Universe a direction or trajectory.