

Research Logic and the Forces of Nature

Last revision: 18. Jan.2018

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Our modern world is digital, true and false, the rating is not a mathematical, but a social problem.

The force term is next to the energy one of the most important terms in physics.

„Today's physics distinguishes four types of basic forces, gravitation and electric force, as the external forces and the forces inside the atomic nucleus, dividing them into weak and strong forces. Each of the four basic forces of nature comes about through the exchange of elementary particles in virtual states.

There is a presumption that these are only different forms of the same force - to prove this, but has not yet been successful.

The force effect would come from exchange of bosons between fermions. That is, the effect of the force is that

- *it pulls fermions towards each other (as if they were connected by a rubber band)*
- *or keeping them at a distance from each other (as if they were connected by a coil spring that can not be compressed arbitrarily far). " [1]*

1. What is a force?

What does the above explanation tell us? Nothing! It only raises new questions. What are fermions and what are bosons? But first we want to put these questions back.

We feel forces. For example, if we hold two magnets in our hands, if we want to get up, if we want to move an object, in short, if we want to do a job. We remember: In classical physics, **force** is an impact that can deform a locked body and accelerate a moving body. The acceleration is a change in the speed of a body. It is always a directed size, because there is no movement without direction in space. The force practically inherits the property of being directed by the acceleration. One speaks of vectors. Since a force F is a vector, it always has a direction and a value measured in units Newton. **So when talking about the basic forces, you should assume that you should distinguish forces according to their basic directions and not the places where you found them.** [2] In three-dimensional space, there are three basic directions that can be used to create all directions. Consequently, there should only be this classification. On the other hand, forces can only be distinguished by their amount. There is little point in distinguishing them by the way they appear outside and within the atomic nucleus. So far we have been talking about the application of a force to the movement of bodies so we have to clarify that a bit. A body is described by its volume.

But bodies of the same volume are of different weight because they can contain different masses. Forces are the product of mass and acceleration.

2. The connection between mass and force in the atomic nucleus

To know something about the mass, you need a mass spectrometer. This is an electrical device, which classifies all chemicals according to their masses. It has been found that the masses split up according to their chemical constituents in the magnetic field and collect in discrete locations. Consequently, there is a force that causes this splitting. It is the electromagnetic force called **Lorentz force** that is perpendicular to the electrostatic force that drives the electrically charged mass flow forward.

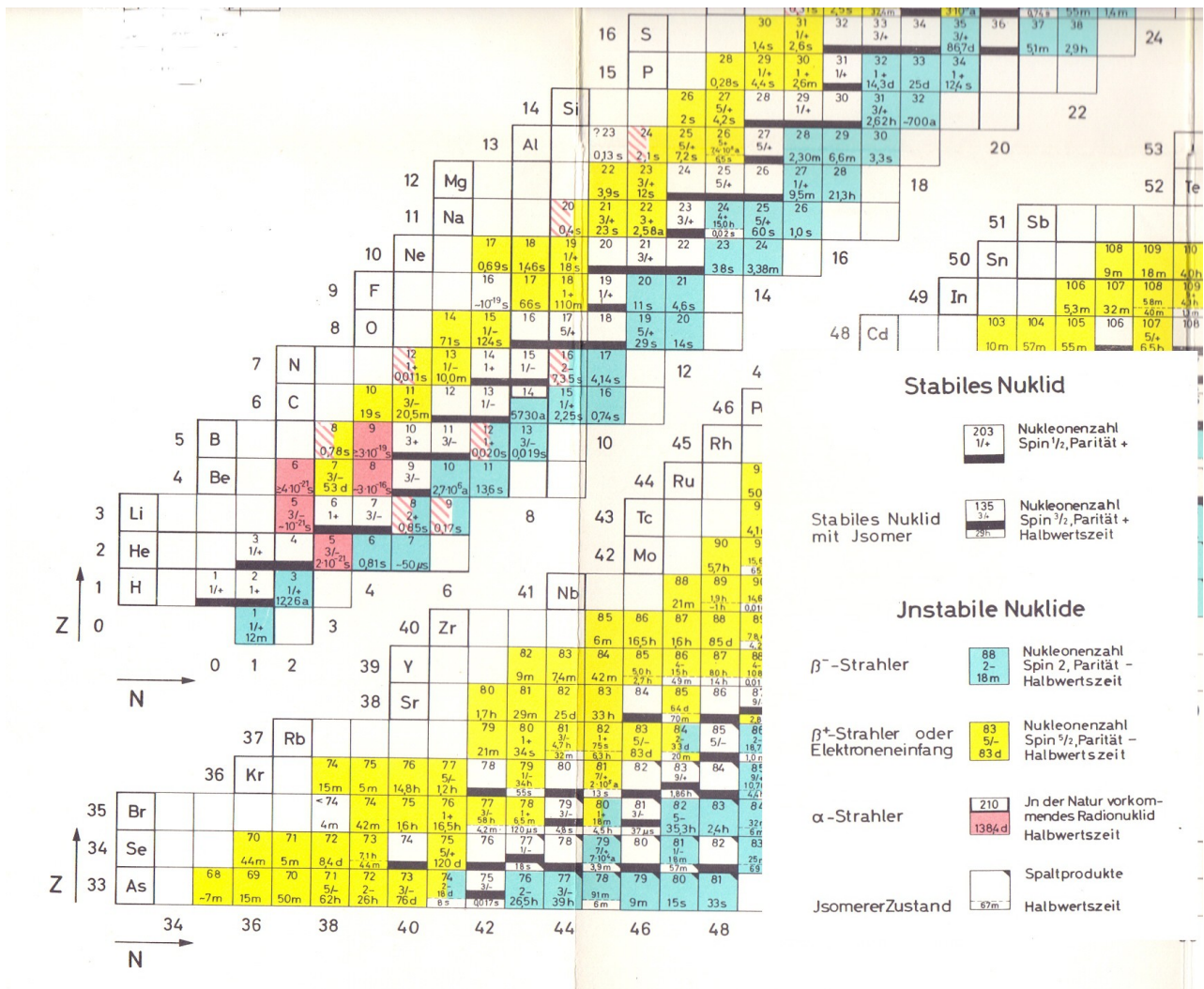


Figure 1: Detail from the nuclide table Reference: H. Ebert - Taschenbuch der Physik 1967 Vieweg Verlag Braunschweig

This can only happen if the mass is split into two differently charged components in an electric field of force, namely the lightweight mobile negatively charged electrons and the thousands of times heavier cumbersome positively charged ions.

From the deflection of the ions by the Lorentz force in the magnetic field you can conclude their mass. Thus it was found out that there is a certain connection between the mass, the charge and the chemical property of the atom. The smallest positively charged atom is the hydrogen ion, also called proton. All other ions have a mass, expressed by the number of nucleons N , which are a multiple of the proton mass. (see Figure 1)

If you compare the number of nucleons N with the order of the chemical elements, you obtain the number of protons in the atomic nucleus called the atomic number Z , which is confronted with the same number of electrons in the atomic shell. If you subtract the atomic number from the atomic mass, you obtain the neutral part of the mass $(N-Z)$. As a result of the release of single neutral particles of atomic nuclei, the neutrons, which decay outside the atomic nucleus into a proton and an electron that transform into a hydrogen atom within about 15 minutes each, they assumed that these neutrons are also in the nucleus. However, it is not believed that α -particles exist in the nucleus, although as such they escape from heavy atomic nuclei such as polonium as radioactive radiation. So you can surmise, as it did C. Johnson [3] on the basis of the mass balances in the atomic nuclei that in the atomic nuclei only positive protons and negatively charged electrons occur, neither neutrinos nor the hypothetical quarks. Instead of neutrons, we assume that the neutrons are nuclear electrons and protons within the nucleus. Because the mass of the protons is 1860 times larger than the mass of the electrons, the mass of the electrons can be almost neglected, but the charge can not, which is why the negative nuclear charge is Z . This gives the charge ratio between protons and electrons to $P/(P-Z)$. This quotient varies over all isotopes between 3 and 1.4. Consequently, only electromagnetic forces can occur in the atomic nucleus. Isotopes with a charge ratio of about 2 are stable, which means that two protons in the nucleus would be connected by an electron if imagined arranged on a string. In fact, an electron can bind a little more or less than two protons. That depends on its spatial structure. The classical electron radius is $2,8 \times 10^{-15}$ m and the proton radius calculated using this formula would be $0,84 \times 10^{-17}$ m [4]. In other words, the electron has a radius about 330 times larger than the proton. Recent measurements in Garching showed a 2 orders of magnitude higher value of 0.87×10^{-15} for the proton radius [5], which still means a 3.2 times larger electron radius compared to the proton radius. The volume of an electron taken as a sphere is then still 37 times larger than the proton after these measurements. The mass density of the proton is 2400 times higher than that of the electron. So the idea that electron and proton coexist in the nucleus is a little outlandish. The proton floats more in the electron soup.

3. The electromagnetic droplet model of the atomic nucleus

The droplet model is already quite old. The basic idea was already developed by George Gamow in 1935 [6]. Unlike in previous models, there are now no neutrons left inside the core and no additional nuclear forces are assumed. Looking at the nuclide table shown in Figure 1, it was noted that one electron, under the protection of the atomic shell, would then be able to permanently embed two protons in a negative droplet. A charge ratio, which becomes noticeably larger than 2, causes the atomic nucleus to capture an electron from the shell. The isotope becomes the β^+ - radiator. In the case that the charge ratio shifts towards 1.4, the charge balance between core and shell is also

disturbed and an electron is released from the core, which then leaves the atom. We observe a β^- radiator. From all this follows that in atomic nuclei exist only the electric forces between the two different charges, neither weak nor strong nuclear forces, and the radioactivity is a consequence of the charge ratio between protons and electrons in the atomic nucleus. In the standard model of particle physics, electrons and protons belong to the fermions, characterized by a half-integer spin, in contrast to the bosons, which are assigned an integer spin.

It turns out that this entire theoretical particle zoo contributes more to confusion than to clarifying the balance of power in the atomic nucleus. A division of the fermions into hypothetical subcomponents such as quarks becomes superfluous.

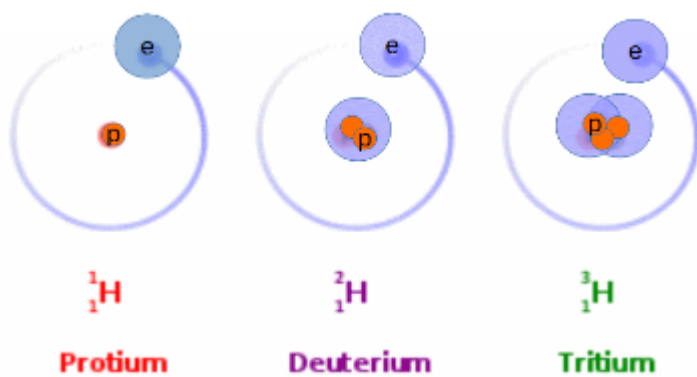


Figure 2: Droplet model of the atomic nucleus

Figure 2 shows the droplet model of the atomic nucleus. The protons swim in pairs or as a triple in an electron fluid. Now the spin of the protons comes into play. What is the spin? You would suspect that it is a torque. The theoreticians do not know that exactly because they assigned an additional dipole field to the electron and proton.

But it is a quantum trait they need for their calculations. The discovery by J. de Climont [7] that the electron has no dipole field, but a spin field, sheds new light on the spin.

Due to the parallel spin alignment of two protons they form elementary magnets. The triple bonding of protons held together in an electron is unstable. Since electrons in turn have a spin, one can not imagine the electron fluid as homogeneous, but must assume a cellular structure. These cells, in turn, align according to their spin to form magnets. Therefore, the proton magnets can either amplify or weaken the electron magnets. If the tritium still picks up a proton, the spins can align to form two particularly stable parallel structures. It can be assumed that the folding of the spins from a triangle or star structure into the parallel structure is accompanied by the emission of γ -rays.

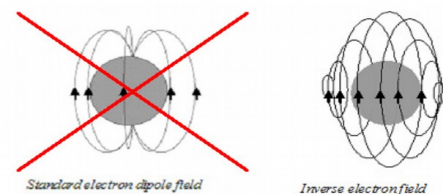


Figure 3: Field of a electron
Reference: de Climont[7]

Each of the two charges has its own force fields, an electrical one and a magnetic one perpendicular to it. These force fields are described by Maxwell's equations. When a charge vibrates, the vibration is transmitted across the entire force field at the speed of light. Now we know that electrons orbit the atom in certain orbits and release some of their energy when they leave an energetically higher orbit to fall into an energetically lower orbit. This transition does not occur by simply dropping the electron on the other lane, but by oscillating between the two lanes until it has the energy level that applies to the lower lane. These vibrations are in the range of nanowells. When electrons from the innermost electron shell are captured by the nucleus, which corresponds to the β^+ - radioactivity, the X - rays are obtained and the remodeling of the atomic nucleus is accompanied

by even shorter γ - radiation. When the atoms begin to vibrate, these vibrations are correspondingly lower in frequency, corresponding to their mass, which is 1800 times higher. We perceive these vibrations as microwave radiation. Thus every charge movement is accompanied by electromagnetic radiation. The emission corresponds to the deceleration of a charge and the absorption of the acceleration of a charge.

In summary, we can say: A force field is based on a bipolar mass. Due to the size differences between the two types of charge, there is no complete neutralization of the charges. Without mass, there is no force field. The visible limit of a mass is not the limit of its force field, this extends at least to the next mass. In the atomic nucleus, the positive charge forces that are forced outwards are largely shielded by the electron shell. That this is not completely successful proves that there is still a force outside the atom that regulates the cohesion of the masses. One has chosen a variety of terms such as adhesion, cohesion, frictional force, but the cause is certainly only the fact that the nuclear charge moves against the shell charge something from the center, so that there is a charge dipole, the individual atoms more or less less strongly linked together. [7]

Now we can also answer the question about the bosons. In the concept of particle physicists, there is only empty space, no physical volume with force fields between electrically charged particles. In the ideas of particle physicists, bosons are fictitious particles that are supposed to transmit forces and mass between the fermions. [8] But nothing is fictional in nature. In other words, the explanation of the particle physicists is not an explanation, but a very complicated transcription, for the fact that they do not know how the connection between masses and force works.

4. The Gravitation

While Newton saw gravitation as a force based on the masses of celestial bodies, Einstein regarded gravitation as a property of the geometry of space. Who is right?

We have already attributed the two nuclear forces to the electrical force. An enigmatic power remains there, the **gravitational force**. Compared to the electric force, gravity is a very weak force. It seems that the atomic nucleus can not be completely shielded from the electron shell and that a weak force remains which ensures the cohesion of the masses. It manifests itself in the mutual attraction of 'neutral' masses. It narrows with the square of the distance between two masses, but should have unlimited range. Unlike electrical or magnetic forces, it can not be shielded. The shield effect arises from the influence of free electrons, which must be available everywhere in sufficient numbers, as can be concluded from the new droplet model and the existence of an ionosphere. This influence causes a charge shift within the screen. The resulting opposing field is then just so strong that it cancels the original electric field. The gravitational effect is not affected because it is not caused by free electrons, which must occur everywhere, as we can conclude from the above-described proton-electron ratio in the atomic nucleus, but if an atom is in an electric force field, this causes a shift of the atomic nucleus against the entire electron shell, which generates an electric dipole effect. Thus, the sum of the attractive forces is always greater than that of the repulsive forces, because the distances of the unequal charges are closer than the distances of the same

charges. The gravitational force is then indistinguishable in the effect of electrostatic attraction. This was also pointed out by Wal Thornhill in his article *Electric Gravity in an Electric Universe* from 2008. [9]

As emphasized at the beginning of section 4, Newton described gravitation as a force with which two masses attract each other first through a mathematical formula. However, he could not explain why the moon revolves around the earth and does not fall like an apple to the ground. Einstein, with the idea of the curvature of space-time, came up with another explanation that implies that a mass falling into a shell begins to circle, but only if the direction of the fall is not central. Although many physicists still cling to this idea today, it is absurd because gravitation is understood as a geometric property. Even the connection of space and time to a four-dimensional structure is an impossibility, since time is functionally linked to the path via speed. A room, on the other hand, is described by independent features. The Euclidean space is also a vector space, which would mean that time must be a vertical vector on the way, so that the condition of independence is fulfilled. In fact, non-Euclidean geometry is not a geometry of space, but a geometry of surfaces, because only surfaces have a curvature where parallels can intersect. Now, space is also a mathematical concept, a product of our mind and not a physical object. Space is the abstraction of the physical volume of a mass, with the distinction that masses are limited, space not. Masses do not occur in the General Theory of Relativity. The empty space, which is assumed as universum in theory, is an inadmissible abstraction. Masses have different densities according to their state of aggregation. The lowest density reaches a mass in the plasma state. The plasma state is excellent in that it contains enough free charge carriers to determine its behavior.

If, on average, each proton faces two nuclear electrons to form a chemical element, there must be enough free electrons. How should there be a charge balance in the cosmos? The fusion of chemical elements in the starfire consumes electrons and the radioactive decay in the cold regions releases electrons. That our Earth's potential is zero, is an arbitrary determination.

So there will always be potential differences between the different parts of the cosmos in which the cosmic plasma moves. The typical form of movement of the plasma is the Birkeland current, the spiral. To obtain a spiral structure requires three mutually perpendicular forces. The missing force component is the pinch force, which holds the plasma stream together [2]. But that alone does not make gravity. If, for Newton, the falling apple became the impetus for the idea of gravitation, then this force is due to the binding force of the masses due to the dipole property of their atoms [9]. The result of these considerations is that gravitational force is a force that is fed by several influences and it is questionable whether Newton's gravitational constant is a general natural constant and also remains valid outside our solar system. This is not to be expected, which makes the discussion about mysterious dark matter obsolete.

5. Are there gravitational waves and neutron stars?

The latest sensational news from the realm of science in 2017 was that scientists believe, they detected gravitational waves in the collision of two neutron stars. The gravitational waves could

have been assigned to a flash of light that arose when the neutron stars were combined [11]. It is amazing how uncritically the public receives such reports. Checking this message for its truth raises some questions.

Is it possible to check the question of the existence of gravitational waves and neutron stars? The Nobel laureate for physics from 1998 Robert Lauglin said in an interview with Der Spiegel once: *"No matter what you believe, in the end you have to ask yourself: with what experiment could I prove that my favorite idea is wrong? And only then, if the experiment fails, you have the chance that you are right with your thesis. That's difficult, because not seldom the career depends on the correctness of your idea."* This raises the most important question: As a researcher, can he confess a mistake at all without ruining his' career? If the question is to be answered in the negative, is there any guarantee that right ideas will be produced? With the costs, which develop today with experiments, this is to be doubted strongly. If the truth of an idea can not be verified, the idea should at least not contradict the established knowledge and this can easily be checked.

Let us first turn to the question of the existence of neutron stars. In the universe you find so-called pulsars, which are supposed to deliver energy like a rotating beacon. These stars are equated with white dwarfs. White dwarfs exist and have a very characteristic spectrum with thick and deep hydrogen absorption lines over the entire Balmer series, against a thermal background similar to star classes O5 to G0. Their luminosity is very weak compared to the main series of stars and they

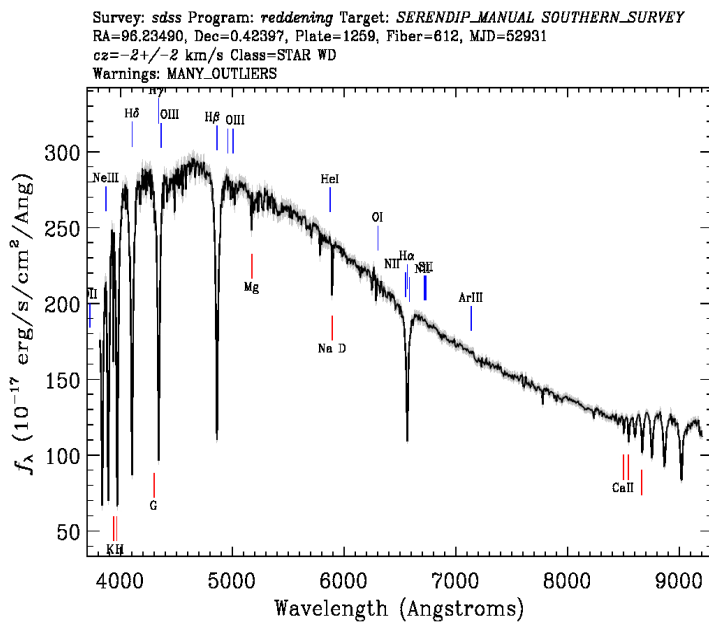


Figure 4: Characteristic spectrum of a white dwarf
Reference SDSS-Data Base Release14

are obviously very rare compared to the main series stars. Elements other than hydrogen occur in their atmosphere only in small quantities. These are mainly Na, Mg and Ca. Due to the depth of the absorption lines of the Balmer series, it can be concluded that the atmosphere is charging like a capacitor and when the breakdown voltage is reached, this capacitor discharges in a huge flash of light, similar to a thunderstorm.

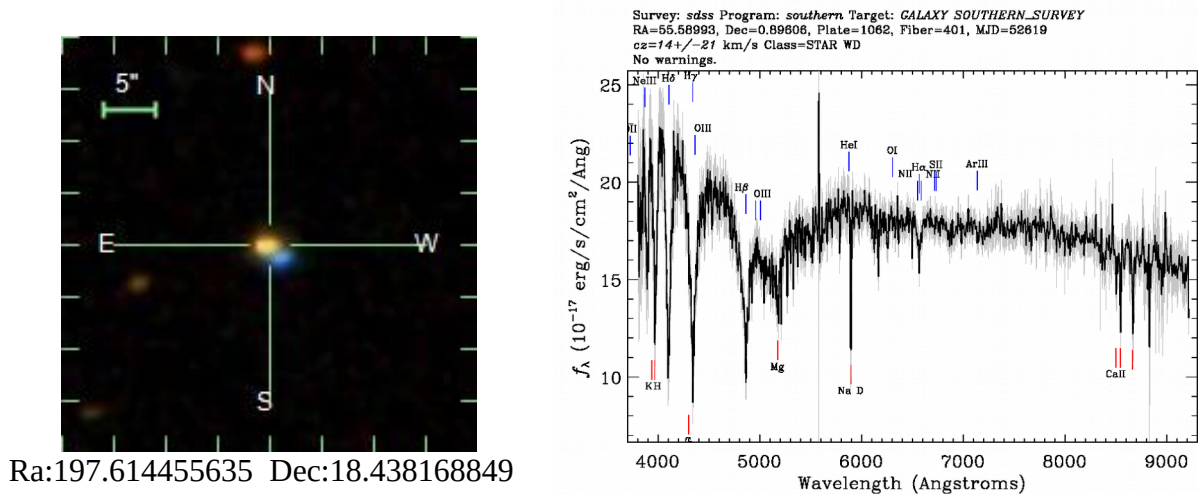


Figure5: Collision of a star with a white dwarf¹

The existence of neutron stars was first suggested by Walter Baade and Fritz Zwicky in 1934 when they argued that a small, dense star consisting primarily of neutrons would result from a supernova [12]. On the basis of the present spectra of White Dwarfs this argument can not be understood. Then all the hydrogen would have to come from inside the star and the star would become smaller and smaller. However, hydrogen is interstellar in large quantities, as can be seen in galaxy spectra. Currently, the data is still very thin as far as the star spectra around these dwarfs are concerned. There can be no question of systematic coverage. Thus, the decision on the origin of hydrogen in the atmosphere of the White Dwarfs remains unclear.

Jocelyn Bell and her thesis supervisor Antony Hewish discovered the first pulsar in the search for radio sources on November 28, 1967 at the Mullard Radio Astronomy Observatory at Cambridge. The first physicist to suspect rotating neutron stars just behind pulsars was Thomas Gold in 1968/69. However, a conference initially rejected his speech as too absurd and did not even consider it worthy of discussion.² Later, however, his opinion was confirmed [13]. It remains unclear what has caused the change of mind, because neutron stars are in contradiction to the physical experience. Neutrons are unstable outside the nucleus and undetectable within the nucleus, as we noted earlier. With the declared density of these stars, the mass must exist as a huge atomic nucleus. This has never been observed and is highly unlikely. The largest stable atomic nucleus with the mass number 209 and a radius of 160pm is the element bismuth. All heavier atomic nuclei are unstable and decompose more or less rapidly into smaller nuclei with the release of α -rays. In star

¹The spectra are taken from a sample of 500 of the best stellar spectra from the SDSS database Release 14 with a total of 5 found white dwarfs.

² „Shortly after the discovery of pulsars I wished to present an interpretation of what pulsars were, at this first pulsar conference: namely that they were rotating neutron stars. The chief organiser of this conference said to me, "Tommy, if I allow for that crazy an interpretation, there is no limit to what I would have to allow". I was not allowed five minutes floor time, although I in fact spoke from the floor. A few months later, this same organiser started a paper with the sentence, "It is now generally considered that pulsars are rotating neutron stars." Thomas Gold: „[New Ideas in Science](#)“, Journal of Scientific Exploration, 1989, Vol. 3, No. 2, 103–112.

atmospheres, however, only elements up to iron have been detected so far, and in meteorites the main constituents are also found next to calcium iron. If there were neutron stars, you would have to find much heavier elements in large numbers in space, or you would need to take a strong external force that would hold a neutron star together, as a huge positive charge would be the result, as follows from section 3. . But this contradicts the ideas of the mainstream astrophysicists, who only allow gravitation in space and they would rather speculate with an ominous 'dark energy' for which there is no explanation. This 'dark energy' is therefore an empty term because it is not based on sensory perception. It is a joker, so to speak, which can be used whenever they have no explanation. In the past, one used some god as an explanation. But that leaves scientific soil. The observed light pulses can also not be explained with neutron stars, since light pulses are the result of electrical discharges.

The next question is about the gravitational waves that are supposed to propagate at the speed of light. From mechanics and electrodynamics we have learned that it requires for the generation of waves of a vibrating medium in coupled force fields. But how can a nothingness, an empty space, which standard cosmology presupposes curl up? That is another logical imposition of modern physics.

In today's mainstream physics gravity occupies a special position. There is therefore no coupling with the electromagnetic force field. Gravitation can not be shielded either. However, a gravitational wave needs fluctuations in gravity. Where have we already experienced such fluctuations in nature? This is the phenomenon of high and low tide. The gravitation of the moon and the sun causes a fluctuation of the water level of the oceans on the earth. However, this always depends on the position of the moon and the sun to a point of observation on the earth, but it has never been observed that the solar gravitation was shielded during a solar eclipse. To be able to speak of waves, but would have to happen just periodically and the impulse would have to be transmitted unattenuated. By contrast, Newton's force decreases quadratically with distance, and why should it only deflect a mirror if it hits the entire earth? In addition, nowhere has it been observed that gravity acts with delay, which is why a coincidence with a flash of light hardly comes into consideration. That gravity would propagate at the speed of light, is not provided at Newton and space travel can handle it well. The force field is available immediately. What does light have to do with gravity? Then it would have to be an electromagnetic effect. Another claim is that gravitational waves would stretch the space in one direction and compress it in the transverse direction. Like Einstein's gravity, which is not a physical force but a mental one that manages to stretch and compress a 4-dimensional geometric concept, empty space, is metaphysical black magic. In addition, the Big Bang model is not compatible with the black hole model, as St. Crothers [15] has established at the EU2017.

With simple logic you conclude that the report about the gravitational waves, triggered by two neutron stars, is a hoax because it is in contradiction to observed natural phenomena. Even Einstein has rejected the idea of gravitational waves. As G. Weinstein stated in 2016: „*Around 1936, Einstein wrote to his close friend Max Born telling him that, together with Nathan Rosen, he had arrived at the interesting result that gravitational waves did not exist, though they had been assumed a certainty to the first approximation. He finally had found a mistake in his 1936 paper*

with Rosen and believed that gravitational waves do exist. However, in 1938, Einstein again obtained the result that there could be no gravitational waves!“ [14]

5. The Unifying Theory or the Dream of the TOE

Let us now return to the initial assumption. One of the goals of modern physics was to find out if all the basic forces or interactions can be described in a unified overall concept. We have shown here that it is possible. However, we have completely omitted Einstein's theory of relativity and the results of modern particle physics based on quantum mechanics. Paul Dirak proved in his 3rd Lecture on Quantum Mechanics, published in 1964, that curved surfaces can not be quantified. [16] Contrary to the widespread belief that space can be curved, Dirac understood mathematics better. He knew that non-Euclidean geometry can only be done on surfaces. It seems strange that such an important theorist as Dirac was simply ignored and spent a lot of money and effort for half a century without any success. It must have something to do with his attitude to religion. He said, among other things: „I cannot understand why we idle discussing religion. If we are honest—and scientists have to be—we must admit that religion is a jumble of false assertions, with no basis in reality. The very idea of God is a product of the human imagination.“ [17]

Today, in mainstream physics, they speak of unified theories that ultimately lead to a Theory Of Everything, focusing entirely on erroneous mathematics, losing sight of physics, because these theorists believe mathematics is part of nature and science not the human language [18].

Schritte zur Weltformel (Theory of everything)				
Starke Wechselwirkung	Elektrostatik	Magnetostatik	Schwache Wechselwirkung	Gravitation
	Elektromagnetische Wechselwirkung			Allgemeine Relativitätstheorie
Quantenchromodynamik	Quantenelektrodynamik			
Elektroschwache Wechselwirkung			Quantengravitation	
Standardmodell				
Große vereinheitlichte Theorie				
Weltformel: Stringtheorie, M-Theorie, Schleifenquantengravitation				

Figure 6: Way to the Theory of Everything Reference: [Wikipedia](#)

The project is gigantic in its layout, how stupid. The description of the world with more than three coordinates, as in the general theory of relativity and string theory leads only to contradictions, since curved surfaces are not physical volumes and quantum theory is a statistical theory by nature, which is not combined with a phenomenological description. The basis of mathematics is binary logic, the concept of true and false, but the assessment is not a mathematical problem. The consistent mathematization of physics is therefore not effective. It only obscures the internal contradictions, as it does every foreign language that you don't master well enough . All these theories mentioned in Figure 4 below the green area are superfluous because they are not based on the description of reality, but are based on ideas that should be justified by elaborate

experiments. On closer examination, the standard models developed from it show blatant contradictions to the observations that have accumulated since the beginning of space travel. [19] String theory has since been adopted [20], and quantum gravity has stalled. In short, modern physics is in its greatest crisis for over 100 years. We have the key to the basic force, the Birkeland current, for half a century in mind. [21] On it you can see three force components that are perpendicular to each other and cause the spiraling motion of the planets as observed.

The problem is not physics, but how can a ruling academic elite, after being overwhelmed with honors for its curious 'discoveries', confess, without loss of face, to a new paradigm, the paradigm of the Electric Universe? The people would notice their spiritual nakedness, as once with the emperor in the fairy tale of H.Ch. Anderson. Therefore, prohibitions are prescribed, which can lead to the abrupt end of the career if ignored.

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