

## THEORY OF RELATIVITY – UTLIMATE DISPROOF

### ABSTRACT

In this text will be shown that first postulate of SR theory is wrong and that equality of inertial and gravitational masses is also questionable too.

Proof of inaccuracy of the first postulate is very simple and it is based on the fact that term of velocity is undefined in the Classic Theory of Electromagnetism as well as in the Theories of Relativity as its successor. The velocity should not be measured in respect to observer, but rather to another participant of interaction.

Proof of inequality of inertial and gravitational masses is also simple and it is based on the fact that formulas for center of gravitational and inertial masses of an arbitrary rigid body are not equals and thus their final numerical values for radius vectors of the centers are not necessarily identical. For all symmetrical bodies these two formulas yield same results, but it is not a general case for an arbitrary body.

All miracles of The Theory of Relativity and Electromagnetism are concentrated in this inaccuracy of definition of velocity. And this was logical conclusion about nature of velocity that could be expected from the theories that deal with fields mostly. The origin of that is settled in famous Faraday's experiment with homopolar engine which "showed" that magnetic field does not have its own velocity. How something could be measured in respect to something else that does not have its own velocity? So, absence of reliable brace produced quite strange theories that tried to replace something real with something abstract and thus we got famous observer which defines referential frame. The theories also tried to minimize influence of the observer and his velocity but not to reject them because any reference is better than no reference even if the reference is meaningless and without the influence to whole situation.

### THE PROOFS AND DISPROOFS

Theory of Relativity is based on two postulates in which first one is actually a generalized case of homopolar generator.

Albert Einstein<sup>1</sup> by his first postulate literally described concept of homopolar engine in his famous paper "ON THE ELECTRODYNAMICS OF MOVING BODIES" from 1905: "For if the magnet is in motion and the conductor at rest, there arises in the neighborhood of the magnet an electric field with a certain definite energy, producing a current at the places where parts of the conductor are situated. But if the magnet is stationary and the conductor in motion, no electric field arises in the neighborhood of the magnet. In the conductor, however, we find an electromotive force, to which in itself there is no corresponding energy, but which gives rise – assuming equality of relative motion in the two cases discussed – to electric currents of the same path and intensity as those produced by the electric forces in the former case."

---

<sup>1</sup> Albert Einstein, 1879-1955.

This first postulate indirectly claims that electromagnetic and gravitational fields have undefined velocity too because physical field itself does not have own velocity.

The origin of fallacy of the Relativity Theory lays in wrong explanation of homopolar engine which was invented and lately explained by Faraday<sup>2</sup> in 1827 and this was the first electrical generator built ever. Result of such wrong explanation retarded development of electrical machines causing wrong assumption derived from the experiment that a linear (DC) electrical motor is not necessarily a generator too.

This wrong explanation then led to wrong form of Maxwell equations with partial time derivatives instead of total time ones and that further led us to uncertain concept of fields' energy. We could agree that Einstein did one nearly impossible job to harmonize result of Faraday's experiment and physical reality, i.e. to put in harmony experimental results with the theory. He did it on the best possible way, but however this cannot be always fully correct because basic presumption was wrong.

If we ask ourselves how could be possible that Einstein's formulas are pretty accurate even if the basic presumption is wrong, we would conclude that it is happening due to huge constant of light only. So, instead to calculate speed of mutual velocities of participants of movement, we used velocity with the respect to the observer which is nearly always similar to velocity of one participant. Almost in all real experiments velocity of the target is nearly always comparable to the velocity of reference system, and the velocity of particles that should hit the target is usually relativistic one and much higher than both velocities of reference system and the target.

Einstein tried to fix his previous mistakes by his newer General Theory of Relativity that preserves circulation of space vector, which means that clock of observer and clock of a passenger remain equals when passenger went back to observer from the trip, but their clocks are not synchronized during the passenger's trip.

The fallacies of the theory of relativity should be best exposed by the following two conclusions based on the Special Theory of Relativity:

1. Time and Space are relative physical quantities.

This conclusion led us to the undefined term of velocity that finally caused relativities of time and mass whose absurdities could be best described by the following sentence: "If the time is passing slower to one who is moving faster, than there is a question who is the one judging who is moving faster and who slower according to Galilean's relativity of velocity". Thus we have term of relative velocity and term of absolute velocity of light's speed according Einstein's theory. This is not just philosophical question because if there is absolute speed of light than velocity must be absolute too otherwise quotient of velocity and speed of light would not have a sense and this is classic metrological mistake that leads to absurdity of Symmetrical Twin's Paradox (see <http://www.andrijar.com/twins/index.htm>) in which every participant may claim that he is moving faster because there is no referential point that might be used for detection who is moving faster and who slower.

---

<sup>2</sup> Michael Faraday, 1791-1867.

So, if there is relativity of time, than velocity is absolute value and due to our enormous speed trough eater we could have impression that there is no speed at all because speed of all our movements are negligible to our velocity of movement trough the ether. Our ability to determine velocity with respect to background radiation of 2.7K could be used as proof that velocity is absolute variable. It is valid only if 2.7K radiation is real remainder of Big Bang blast because in the case only we are measuring speed related to the center of Big Bang which is spread to everywhere making everything; otherwise we are measuring velocity with respect to some uncertain and ambiguous reference. This conceptual mistake of electromagnetic theory can be best described by the central formula of classical electromagnetism which is usually written in the following form:

$$\vec{F} = Q \cdot \vec{v} \times \vec{B} \quad (1)$$

This formula is quite ambiguous because other end of the force vector is undefined in concept of classical electromagnetism due to statement that magnetic field itself does not have its own velocity according the Faraday's experiment. Than there is a question with respect to what this velocity is measured?

After we have slightly rearranged above equation we obtain following equation:

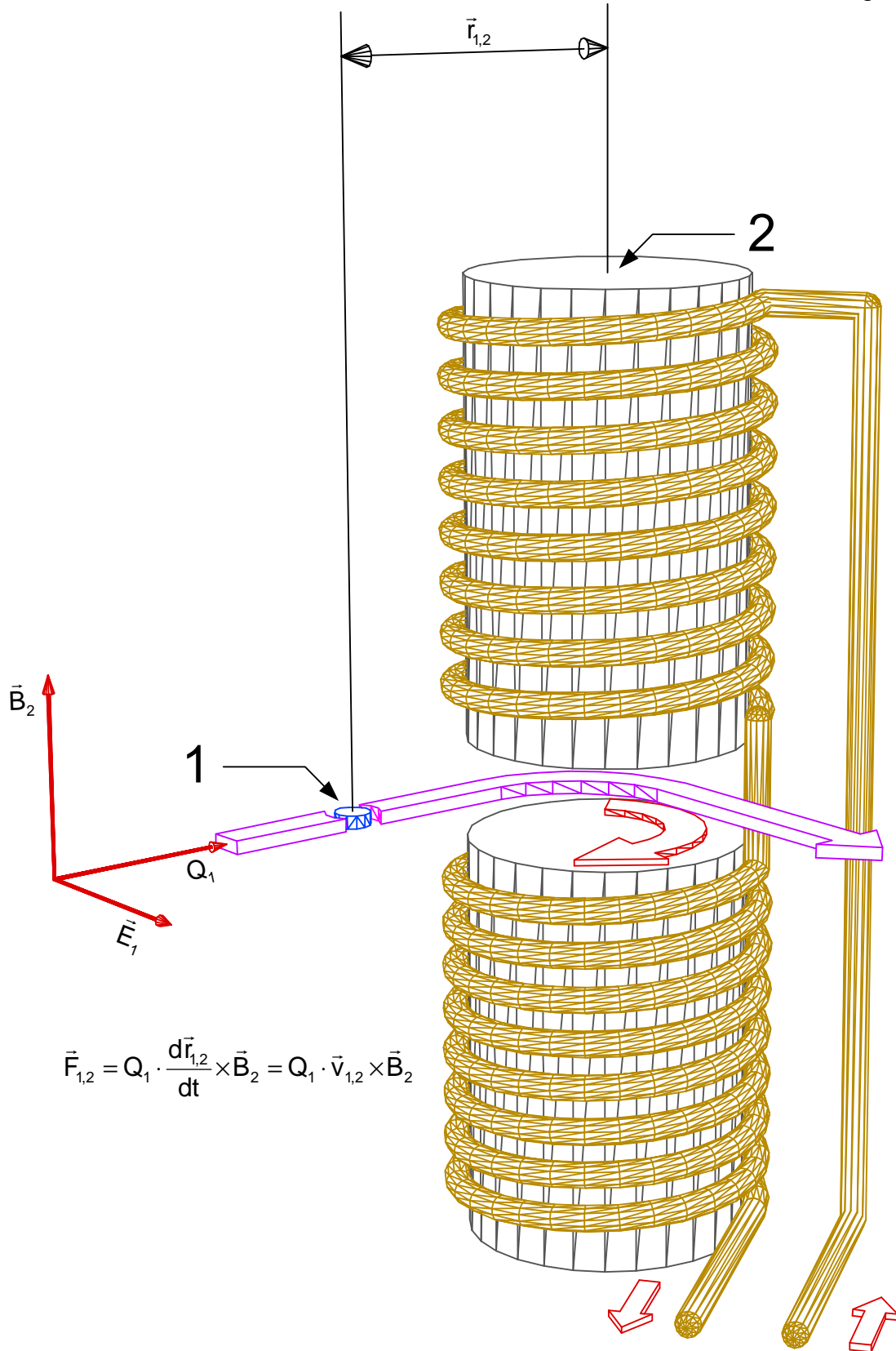
$$\vec{F}_{1,2} = Q_1 \cdot \vec{v}_{1,2} \times \vec{B}_2 = Q_1 \cdot \frac{d\vec{r}_{1,2}}{dt} \times \vec{B}_2 \quad (2)$$

If we accept above equation as true one than there is no absurdity of difference of force's ends that acts and reacts between parts of electric contour, i.e. force of action and force of reaction are not equal:  $F_{1,2} \neq F_{2,1}$ . This is known as Action-Reaction Paradox in classical electromagnetism.

Equation (1) gave chance to various believers, experts and even hoaxers to explain various perpetuum-mobile like devices and antigravity ones too, because these devices were quite possible according to Action-Reaction Paradox of classic electromagnetic theory. The paradox violates energy and momentum conservation laws that are in concordance with main concept of these machines. Although it might happen that some of these machines are possible, than there must exist some quite different explanation of their operation that could be easily tested. Best test could be rotation of several charged parallel plates. There should be a force (due to asymmetry of the forces) acting to a charge in a Doppler's modified field (see <http://www.andrijar.com/magdop/index.html>). But, it also might happen that these are impossible too and it depends on the final form of the function of electric field's Doppler's effect that is not completely determined yet.

Thus it is obvious that velocity in (1) is time derivative of radius vector between the particle and the magnet as it is shown on Fig. (1). We cannot claim that field has undefined velocity in that case because it is quite clear that velocity of physical field is equal to velocity of its source according equation (2) and following picture:

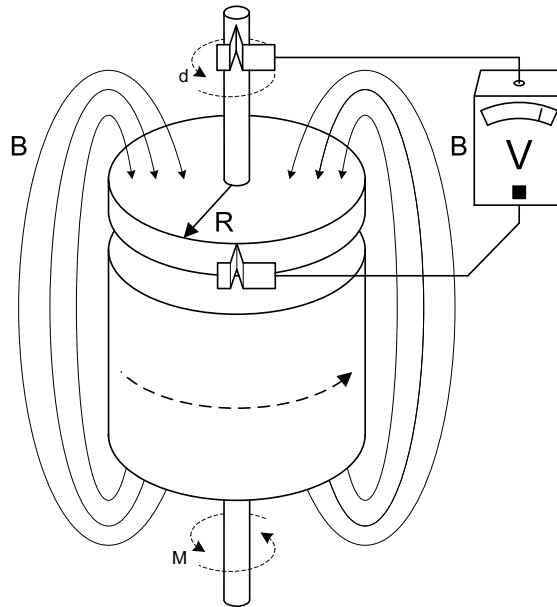
Fig. 1



$$\vec{F}_{1,2} = Q_1 \cdot \frac{d\vec{r}_{1,2}}{dt} \times \vec{B}_2 = Q_1 \cdot \vec{v}_{1,2} \times \vec{B}_2$$

Original Faraday's experiment is shown on the following picture:

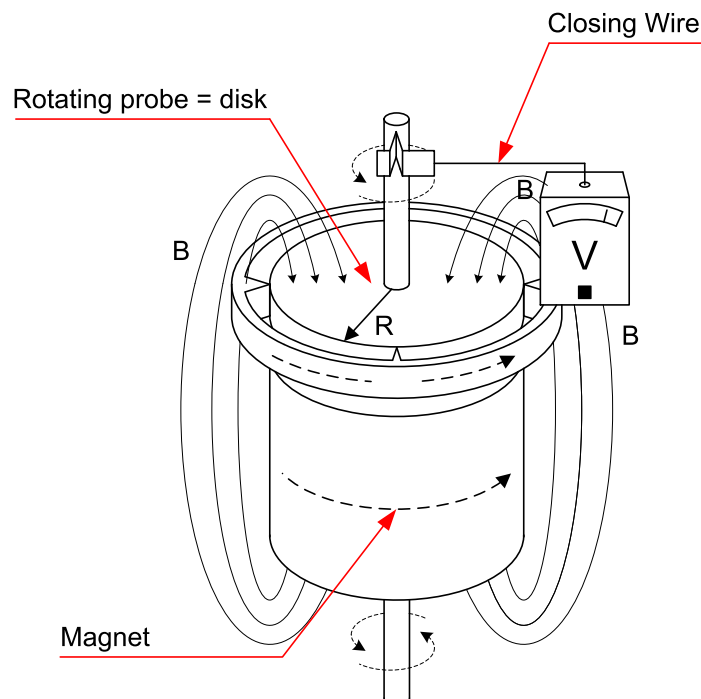
Fig. 2



Faraday noticed that angular velocity of conductive disk settled above the magnet (which is vertically polarized) is only meaningful value which has influence to generated potential and that angular velocity of permanent magnet itself does not affect the magnitude of generated potential at all. Consequential conclusion was that magnetic field does not have its own velocity. But, such device violates law of conservation of angular momentum because there is no prop for rotor and it contains force with only one end because rotor is repealing on nothing, which is impossible!

We can rearrange experiment a bit as it is shown on the following picture:

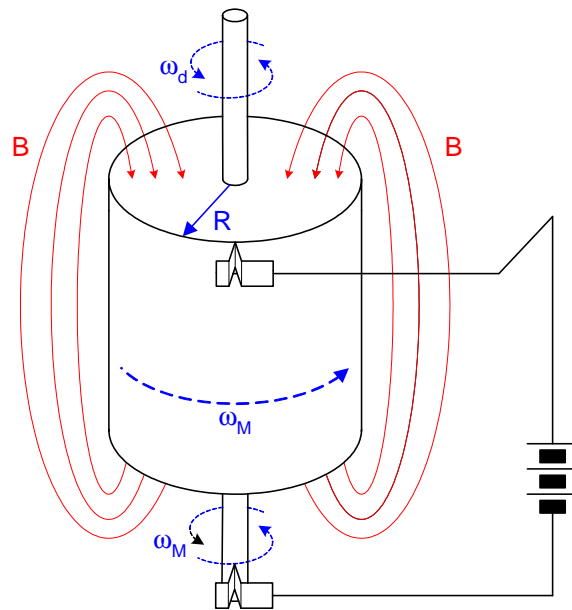
Fig. 3



Now it is obvious that angular velocity of outer contour of electric circuit has tremendous influence to induced potential. This means that another end of the force is directed to outer part of electric circuit, i.e. that inner part is repelling on the outer part of electric circuit. In the situation magnet is only a catalyst amplifying mutual interaction of inner and outer parts of electric circuit because both forces of inner and outer electric circuit's parts are canceling in the magnet eliminating influence of magnet rotation.

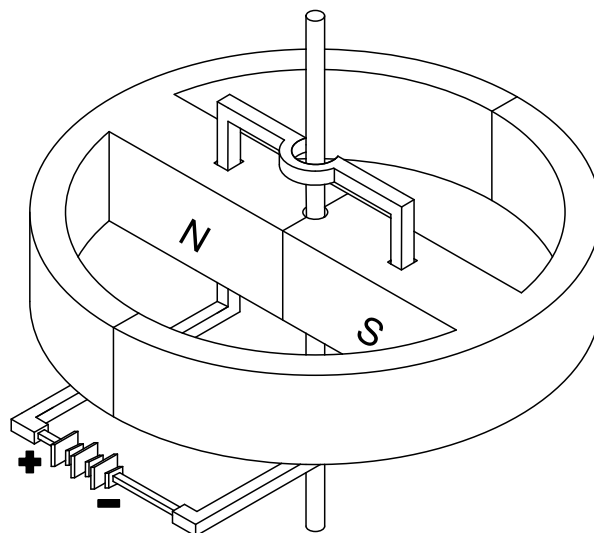
We can further rearrange basic Faraday's setup to clearly show that there is interaction between inner and outer part of electric field with the case in which the rotational conductive disk is a permanent magnet too. The only available prop for the rotor of the device shown on the picture below is outer part of electric circuit:

Fig. 4



Following device will be able to rotate only if classic explanation of magnetic field as the quantity that is always in rest with regards to any referential system is true:

Fig. 5



Rotation of above device is impossible because circuit and magnet rotates simultaneously and this violates both laws of momentum and energy conservations. This is a cartoon's effect which is best describes by a situation when a cartoon's actor blows into his own sail moving himself altogether with a boat. This is only possible in fairy tails and in classical electromagnetism, isn't it?

Action of inner part of electric circuit and action of outer part of electric circuit is canceling in the rotating magnet and thus the influence of magnet's rotation is annulled.

If we try to determine ends of velocity's vectors in Special Theory of Relativity equations we would find great obstacles and most of The Relativity Theory statements will vanish immediately.

## 2. Inertial and gravitational mass are the same things

The Theory of Relativity also claims that inertial mass is substantially equal to gravitational mass. Proof that these two quantities are not equal at all is very simple and is based on difference of center of mass and center of inertia, which is firstly noticed by Jovan Djurić<sup>3</sup> (see article "UNIFICATION OF GRAVITATION AND ELECTROMAGNETISM"). If these two concepts are equal then formulas for these masse centers will be equal too. But, it is not the case.

Definition of center of gravitation says that it is point in which whole body can be replaced with its punctual mass without influence to magnitude of the gravitational field noticed by an observer:

$$\gamma \cdot \frac{m}{r_G^2} \cdot \hat{r}_G = \gamma \cdot \iiint_V \frac{\mathbf{p} \cdot dV}{r^2} \cdot \hat{r} \quad (3)$$

More appropriate form of above represents formula for center of gravitational mass is:

$$\vec{r}_G = \sqrt{m} \cdot \frac{\iiint_V \frac{\vec{r}}{|\vec{r}|^3} \cdot \rho_m(\vec{r}) \cdot dV}{\left| \iiint_V \frac{\vec{r}}{|\vec{r}|^3} \cdot \rho_m(\vec{r}) \cdot dV \right|^{\frac{3}{2}}} \quad (4)$$

The similar set of equations could be established for the center of inertia of the body:

$$\vec{r}_m \cdot m = \iiint_V \vec{r} \cdot \rho \cdot dV \quad (5)$$

Thus we have:

$$\vec{r}_m = \frac{\iiint_V \vec{r} \cdot \rho_m(\vec{r}) \cdot dV}{m} \quad (6)$$

---

<sup>3</sup> Jovan Djurić, 1925-

It is obvious that equation (4) which determines center of gravity and equation (6) which determines center of inertia are not equal even similar and thus it is obvious proof that inertial and gravitational masses could not be equal quantities:

$$\sqrt{m} \cdot \frac{\iiint_V \frac{\vec{r}}{|\vec{r}|^3} \cdot \rho_m(\vec{r}) \cdot dV}{\left| \iiint_V \frac{\vec{r}}{|\vec{r}|^3} \cdot \rho_m(\vec{r}) \cdot dV \right|^{\frac{3}{2}}} \neq \frac{\iiint_V \vec{r} \cdot \rho_m(\vec{r}) \cdot dV}{m} \quad (7)$$

The equations for centers of inertia (6) and gravity (4) are not quite correct because directions of the radius vectors may vary position of the observer and than in the most general case variable depending on mass  $m$  in equations (4) and (6) should be tensor (i.e. matrix 3x3) which is able to much accurate handle the particular body.

## CONCLUSION

We can conclude with proofs 1 and 2 that Special Theory of Relativity is not general truth and that the theory is just a good approximation of physical model of mass variation depending on body's velocity. However General Theory of Relativity claims the same and proofs 1 and 2 could be applied to the theory too.

Special Theory of Relativity suffers from the whole bulk of logical absurdities mainly caused by inconsistent definition of velocity with origin are Classic Electromagnetic Theory with all its inaccuracies. If there is relativity of time than it could be caused only by acceleration, not by velocity because velocity is relative physical variable and the acceleration is absolute one just as time is. The theory also violates Gödel<sup>4</sup> theorem and it suffers from classical Petitio Principii type of fallacies, which is best described with the following statement: "The time is passing faster to one who is moving slower and the speeds of participants are measured with respect to speed of light because speed of light is absolute one and the same for in reference frames."

If the any observer measures the same and constant speed than there is question how this speed could be used as reference speed in fractions. We know from the lectures of metrology that relative physical quantities could be divided only if both quantities are measured in respect to the same reference and obviously that speed of  $c$  cannot be used as reliable parameter in those equations. Due to that, Theory of Relativity is completely closed theory that explains everything within itself, which violates Gödel's theorem. The theorem is basic mathematical fact and cannot be violated by any physical concept.

---

<sup>4</sup> Kurt Gödel, 1906-1978



## EPILOGUE: STOLEN CENTURY

We can ask ourselves how it is possible that so many things have so wrong explanations in contemporary official science. Our scholar system gives us illusion that we have explanation for all phenomena and that we can handle and control everything in the nature, but actually this is not true. It seems that every scholar system has intention to fill any available part of the students' mind with some data. If there are no enough facts, fictions are welcome too. We could remember the ancient Roman physician Galen<sup>5</sup> who wrote 25 fat Medicine's books full of... nearly nothing except instrumentations' description. Ancient universities were very hard places and students had to learn a lot data rather fictions than facts. And these facts were rather descriptive than essential ones. These students had illusions that they were learning real facts and useful knowledge, but today we know from our standpoint that it wasn't the case. Is this the same situation with our science now? How did we come into the same situation? We should notice that at the time when the first modern car appeared on the streets (last decade of 19<sup>th</sup> century and first decade of 20<sup>th</sup> century) complete conceptual development of electricity was nearly finished. Poly-phase currents were already invented altogether with asynchronous motors and generators that were widely used. Systems for AC electrical networks' synchronizations, electric trains, tramways, electric cords in most apartments and houses altogether with electric lightning were existing even in small cities in Europe and America in those times. We should imagine situation where tramways, electric and steam locomotives were running together with horses running on streets and it was even a decade before the combustion gasoline and diesel motors were invented. All basic concepts in electrical distribution systems were introduced into the ordinal usage although electromagnetic theory was far behind the technical reality. Than, an invasion of petrol combustion motors was happened which retarded development of electrical machines and appropriate theoretical concepts including electromagnetic theory too. All blunders of electromagnetic theory were frozen waiting some good reason to be defrosted. We are witnesses that we have not had real progress and that we have just been pushing pistons by hot gases and shaking magnets near wires for more than a century and that our almighty theories cannot predict nearly anything new. Scientists are able to describe existing phenomena only and even to predict something from time to time, but there is no real might of prediction.

We cannot blame Einstein for that. He just did one terrific job – he harmonized electromagnetic theory and classical mechanics, i.e. he harmonized theory of operation of Faraday wheel with results of mass dilatation. But, we know now that classic electromagnetic theory is not quite correct and thus it could not be done with perfect accuracy.

Einstein was a good pupil that appreciated his predecessors and he did not distrust in their science. He derived equations that are able to yield pretty accurate results although the equations are apparently based on previous and inaccurate theories. If he tried to reject these theories as false ones he would loose legality of his brand new theory and than it would never be accepted. He

---

<sup>5</sup> Galen, 129-199

had to reject teaching of Faraday (!), Maxwell (!! ) and Lorentz<sup>6</sup> (!!!) to be right and this would be very bad marketing for his theory. Einstein theory is actually an excellent compilation of theories and hypothesis of 19<sup>th</sup> century's physics which was much better than we are willing to admit to ourselves.

Further efforts of protection of the theory appeared soon after the theory is published which caused mass amnesia of achievements of 19<sup>th</sup> century physics. These efforts are caused rather by religious than scientific reasons and thus it is expecting from students to take the theory as granted, i.e. rather like religious than scientific fact and any treaties is usually rejected by teachers on the same way as religion was doing opposite opinions during dark ages. And, jet, there is always a strange and persistent comparison between science and religion manly impelled by scientists. Although for lot of us there is no doubt that these two things are quite different, it seems that many scientists do not feel the same and thus they desperately try to convince them and us that these two things are not the identical at all. Even a pupil in primary school could notice that force must have two ends according Newton laws, which requires well defined term of velocity. But yet, generations of scientists did not find anything strange in equation (1) and there must be some non-scientific reason for that: accepted theory should be glorified and unaccepted should be damned. Only Weber<sup>7</sup> complained about equation (1) and its inaccuracy of definition of velocity, but he offered a complicated solution for the whole situation instead of simple rearrangement of existing equations. So, our technical progress was protecting us from real theoretical progress.

Author:  
Dipl.-Ing. Andrija Radović  
E-mail: [andrija\\_radovic@hotmail.com](mailto:andrija_radovic@hotmail.com)

Andrija Radović, ©2006  
All Rights Reserved.

---

<sup>6</sup> Hendrik Anton Lorentz, 1853 – 1928

<sup>7</sup> Wilhelm Eduard Weber, 1804 -1891