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# NO DARK MATTER!

SUMMARY 2008 Mai 26

Since decades the rotation of spiralgalaxies and galaxy clusters is poorly understood. Recently it is turned out that the galactic centripetal force not gravity is but in fact the electric Lorenz-force! The Lorenz-force functions in the oncology synchrotrons in modern hospitals exactly on the same way. Therefore firstly the main aspects of the model Electric Universe are presented here i.e. the origin of electricity. Its basis is shown that all electromagnetism originates in the 1836 times higher mass of a proton related to the mass of an electron. Then the mainstream supposition is shown which states that galaxies should rotate only with "dark matter"; they should fly accelerated into the infinite space (they recede) only with "dark energy". Moreover, our normal Universe should exist as an unimportant part of 4% of the mysterious "dark Universe". The here shown new model of the filamentary Universe, the electromagnetic model of the galaxy-rotation and 5 contradictions do not support these opinions. Rather the mystery is found that we find no mysteries in space. We find gravity (of infinite radius) and the electromagnetic force (of infinite radius) everywhere in space. The positive charge stabilizes spiralgalaxies and automatically also acts as accelerator of the receding of galaxies. Moreover, it forms filaments from galaxy-clusters. A solar proton storm of billion tons is similar to a filament of electrons in the TV; both beams are formed by the pinch-effect. This paper suggests that the Universe is normal. It suggests that "dark matter" and "dark energy" do not exist; they are trials to explain celestial bodies via gravity and without the electric force. Galaxies with dark matter could not bear life even if they existed.

## 1 INTRODUCTION

Majestic spiralgalaxies should rotate too quickly. They should spray out their stars because gravity of their normal mass cannot hold together their stars. Physically non-understood "dark matter" should increase their natural (normal) gravity.

Parallel to these ideas, since decades, a huge coaxial magnetic field of spiralgalaxies is measured. Strangely, this well investigated large spiralgalaxy-field of  $10^{-10}$  Tesla seemed to play no role in the Universe. Only in the last year Battaner and Florido [1] discovered that just this "superfluous" magnetic field plays the role of the centripetal force for the spiralgalaxies. No dark matter is necessary.

## 2 MAIN THESES OF THE MODEL OF THE ELECTRIC UNIVERSE

more: [www.the-electric-universe.info](http://www.the-electric-universe.info)

- Gravity is not the "prince of forces" as sometimes mentioned. Gravity is rather the "force of death" because it will pull everything into a black hole.
- The other force of infinite radius i.e. the electric force is the "prince of the forces"! It creates normal matter with a pressure which inhibits this forming of the black hole in the case of small stars as our Sun. Only neutral matter of big stars falls into the black hole. Positive matter of big stars flies as jet away.
- Gravity can produce spheres or ellipsoids. The planets and stars (made by gravity) have 500km - 50million km diameters. They are much smaller than the jets made by the electric force.

- Gravity can only attract. Electricity can attract and repulse. Jets of a length of 150 times of the diameter of the largest galaxies are repulsed electrically.
- Spheres by gravity and jets by the electric force are the two main arts of the celestial bodies. The origin of spheres is clear since centuries, but mainstream astrophysics does not understand filaments due to the neglecting of the electric force in space. Positive atom should exist but positive star should not.
- The electric force creates beautiful filaments and jets via electrostatic repulsion and via pinch-effect similar to lightning and filaments of aurora. The necessary electric charge is separated in the hot stars via thermoelement-effect i.e. the light electrons move outwards quicker than inwards so they leave the star for ever. Protons move similarly but 43 times slower due to their 1836 times higher mass. Protons mostly remain in the stellar core. Their positive charge creates flares and forms the galaxies when they surface.
- On the Sun, a positively charged plasma-core sends “proton bubbles” 11 yearly. These proton bubbles (“footpoints”) are the cause of the solar jets.
- This positive bubble appears in the photosphere and electrically explodes there via cool-down. The protons in excess start to feel the repulsion by each other. Similarly to the photons, these protons start to fly out from the photosphere parallel to each other.
- Such jets are the biggest and most energetic bodies of the Universe - arriving nearly light-velocity. They are emitted by the accretion-disc at the black hole.
- Looking the Universe from far, it is filamentary via the electric force.
- The beautiful discs of spiralgalaxies are not the results of gravity (as thought along many decades), even not the results of supposed gravity of **dark matter** – as mainstream astrophysics teaches. Galaxies are mainly formed electrically. The positive stars, dust and other bodies in circular orbits produce a coaxial magnetic field and this field produces the circular orbits of the stars via Lorenz-force – exactly as in synchrotrons of hospitals.
- Gravity is eternal and cannot be hidden even not in a black hole. Gravity cannot be switched out. It is always switched on.

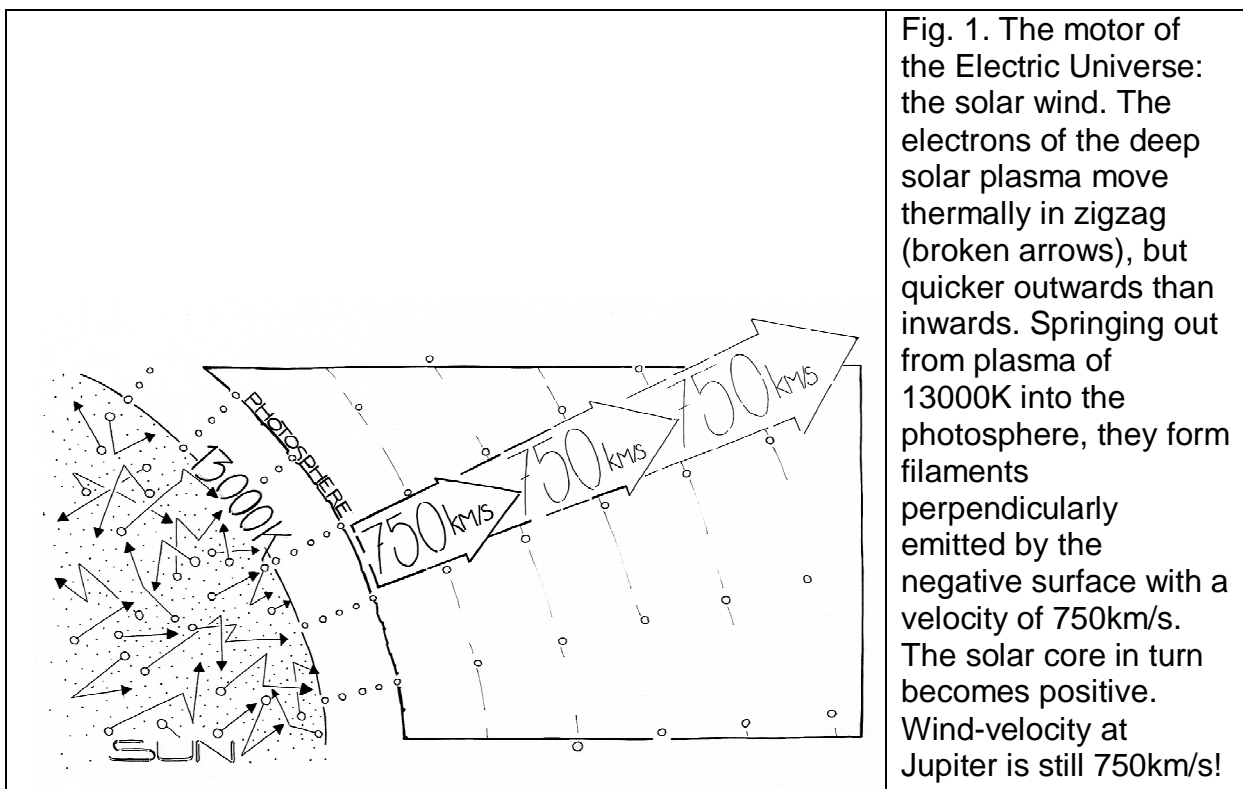


Fig. 1. The motor of the Electric Universe: the solar wind. The electrons of the deep solar plasma move thermally in zigzag (broken arrows), but quicker outwards than inwards. Springing out from plasma of 13000K into the photosphere, they form filaments perpendicularly emitted by the negative surface with a velocity of 750km/s. The solar core in turn becomes positive. Wind-velocity at Jupiter is still 750km/s!

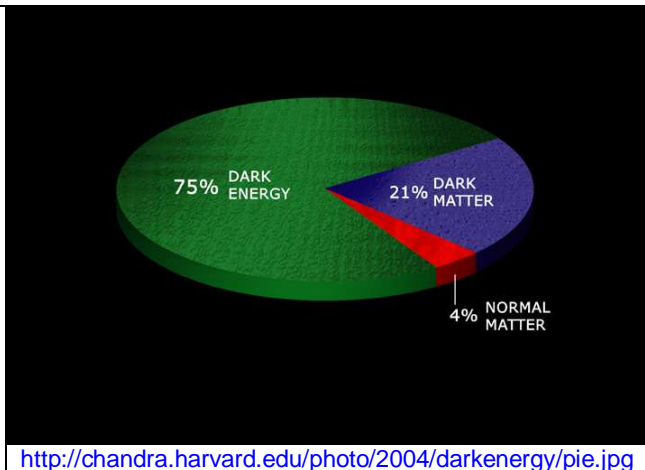
- Free electricity is continually born in the stars and dies if positive and negative charges meet.
- It can be switched on by cooling down of charged plasma to charged gas (e.g. in solar photosphere (Fig.1)).
- Mainstream astrophysics takes only gravity into account. Astrophysics thinks that free positive and negative charges are totally neutralized in space. This erroneous point of view probably is the cause of 100 old contradictions and the idea of “dark matter” in astrophysics.
- It is not debated that the electric force is non-imaginably stronger than gravity! From a distance of e.g. 1000 million km, one gram of pure protons repulses another one gram of pure protons as strongly as one superstar of 500 sunmasses ( $= 10^{36}$  g) attracts another such superstar! The Lorenz-force easily moves the light or heavy bodies of the galaxy in circular orbit.
- The smallest filaments in space consist either of electrons in parallel flight repulsed by a star - e.g. the solar wind repulsed by the negative areas (Fig.1) – “coronal holes” of the Sun). These electron-filaments excite the aurora and function in their small version in the TV - producing the TV-pictures.
- These filaments can also consist of ions which also fly parallel to each other repulsed by a star (e.g. a solar ion storm as that in 2005 Jan 20 of a velocity of 120 000km/s).
- Both arts of filaments shaped by the pinch effect getting a circular cross section. (Mainstream astrophysics will see megakelvin-hot plasma somehow filled into magnetic tubes, somehow moved magnetically by “reconnection”).
- In solid, liquid, gaseous and plasma state of matter, particles move in zigzag.
- However, charged particles move parallel to each other in the electron-beam in the TV or proton storms of the stars. No magnetic tubes, only the pinch effect forms these filaments. (The ions in the coronal filaments e.g.  $\text{Fe}^{+9}$ ) are often misunderstood as particle of very hot plasma of 2MK) but these filament-ions are not hot and not cold! Their X-ray is non-thermal- (i.e. recombination-) light. If they would consist of – as often mentioned – 100MK hot plasma, these filaments would be quickly cold. They are not hot but positive and keep very long their positive charge. The filaments of the Sun, Crab and Vela do not kill us with their “heat radiation”. Absolutely no heat is emitted by them.
- These positive filaments remain near the star or interstellar space. However, the light electron-filaments were swept away by the interstellar gas and dust.
- Therefore, spiralgalaxies in rotation produce circular positive currents which create a large and coaxial magnetic field in the range of  $10^{10}$  Tesla. This dipole-field makes dark matter superfluous! Moreover, this electromagnetic model solves many problems which were already known or new ones, shown firstly in this paper.
- The positive stars, neutron stars, white dwarfs, meteors, dust and filaments of the galaxy feel the Lorenz-force as e.g. protons in a terrestrial synchrotron of e.g. hospitals. These stars and filaments will have a circular orbit.

## 2. THE “ELECTRIC GALAXY” – MODEL

Gravity and the electromagnetic force: these and only these both forces of infinite radius form the galaxies. Mainstream astrophysics takes only one of them (gravity) into account because of tradition of the last century.

Fig.2 the alleged components of the Universe. The “dark energy” is mainly necessary for the accelerated receding of itself and for the acceleration of the huge amount of “dark matter”. (Three centuries of physics observed nothing from these alleged 96% of the Universe!)

This dark energy should push itself and all other celestial bodies with a force but it has only **gravity for push!** All galaxies should exist in the tiny part of 4%



## 2.1. THE OLD GALAXY MODEL ON THE BASE OF NATURAL GRAVITY

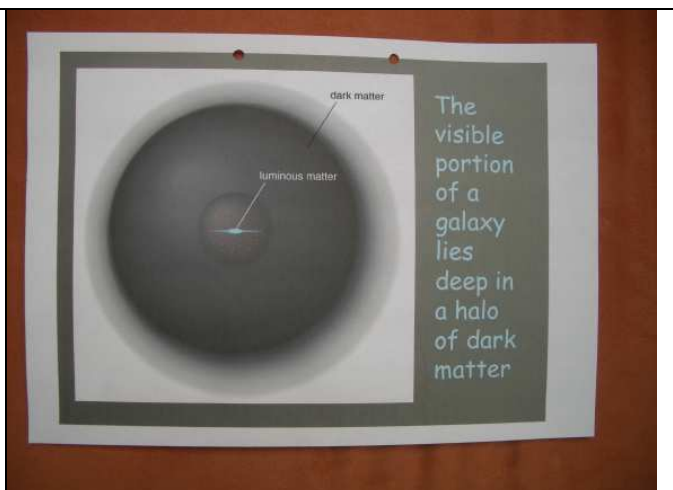
This model was based on the logic supposition that the centrifugal force of the spiralgalaxy-stars in their circular orbits is automatically equal to their centripetal force via integrated gravity in the centre – because the galaxy is stable. **(2.1)**

This elegant old model is now discarded because gravity of visible matter (according to new estimations) created not enough centripetal force for the spiralgalaxies.

## 2.2. THE MAINSTREAM SPIRALGALAXY-MODEL WITH ”DARK MATTER”

Logically astrophysics should try to explain the galaxies with the stronger (with the electric-) force of infinite radius if the centripetal force via normal gravity is too weak. Perhaps the electric force can keep the stars in their for gravity too quick orbits – as will be shown below. However, traditionally, mainstream astrophysics remained in the field of gravity. The too weak centripetal force of normal gravity was amended by a supposed stronger “dark” gravity.

Fig. 2  
Surprisingly huge amount of “dark matter” in the halo of a spiralgalaxy (“luminous matter”). However, the sum of “dark” gravity is zero in the centre even if “dark matter” existed. Equal pulls from all directions result in zero pull. The here shown case is no exception. The supposed position and the amount of “dark matter” are not clear. We must suppose 10 times more dark matter in halo. However 100 times more “dark matter” is necessary between two spiralgalaxies to overcome their centrifugal force!



In the “**dark matter**” model, normal gravity was made stronger with supposed **ADDITIONAL GRAVITY** of a hypothetic “dark matter” in spiralgalaxies. **(2.2)**

The origin, distribution and attributes of this “dark matter” are unknown fields: “terra incognita” [1-3]. Also present paper suggests looking for a better model.

The magnetic fields in a spiralgalaxy can elegantly be measured [4-6] via measurements of polarisation of radiowaves.

However, theoretically, all gravity-models of spiralgalaxies are erroneous. Gravity models predict

#### **no order**

in the orbits of the stars in the spiralgalaxy. Gravity models cannot explain that all stars of a spiralgalaxy orbit coaxially and in one direction after swallowing of many galaxies of various directions since gigayears. The presence of relatively strong magnetic field of spiralgalaxies proves the order of the circular orbits. Therefore, the magnets of all circular currents (of circular orbits) are added in spiralgalaxies.

The usually supposed amount of “dark matter” for a galaxy ranges between 3 times up to 10 times of the normal matter. The whole halo of the galaxies should be filled with this surprisingly high amount of dark matter (Fig.3). (How could such a big error survive in the estimation of mass of spiralgalaxies along decades?)

However, this supposition of dark matter leads to contradictions (see below under 3).

### **2.3. THE “ELECTRIC GALAXY” MODEL**

All magnetic fields are created electrically therefore that of a spiralgalaxy, too. The magnetic field as a centripetal force was discovered by Battaner and Florido [1] in 2007, see below.

The main idea of the electric spiralgalaxy model is similar to the first model of the galaxies (2.1). It suggests the same principle: “all for one and in turn: one for all”. All stars create one large magnetic field via their circular motion and this large magnetic field in turn keeps the stars in circular orbits.

All stars and their emissions of big masses are positively charged [1]. Therefore their rotation forms circular positive currents. These in turn create a strong huge magnetic dipolfield because their axes are parallel to the rotational axis of the galaxy. Every elementary magnet of a circular orbit is added to all other magnets. Via Lorenz-force this sum gives the centripetal force of the stars in the galaxy. **(2.3)**

This dipolfield fills the halo of the spiralgalaxy. All stars and their positive emissions feel a centripetal force in it i.e. the Lorenz-force. These positive celestial bodies get a balance with the centrifugal force along their circular orbits exactly as e.g. protons get a balance in a terrestrial synchrotron via Lorenz-force. Magnetic axes and rotational axes are identical in terrestrial and also in celestial case.

Neutral meteors, dust, hydrogen clouds will be positive via energetic stellar photons. They remain in the galaxy via their photon-made electric charge. Their centrifugal force is very low due to their low masses. They are known as “high velocity cloud”. They can have much higher velocity than the stars in their circular orbits.

The neutron stars have the highest electric charge up to  $10^{20}$  coulomb [9]. They can fly along the solar orbit. However, they fly with a much higher velocity

(e.g. 1600km/s) than our Sun does (with only 220km/s). Though, they do not fly away from our Galaxy. Therefore this stability of the neutron stars on solar orbit is the proof of the “electric galaxy”- model. The Lorenz force is proportional to the electric charge of the body in circular orbit. Therefore the neutron stars can strongly surpass their orbital escape velocity (of 315km/s) calculated by the Kepler-laws.

The incredible huge supposed “dark masses” in Fig. 3 should perhaps be corrected to higher dark masses to allow a velocity of 1600km/s!

A neutron star with 1600km/s produce already 8 times higher magnetic field than our Sun due to this 8 times quicker orbits of the neutron star. Moreover the orbit of the neutron star is many times stronger magnet than that of the Sun due to its  $10^{20}$  Coulomb! [9] These very high magnetic fields produce a coaxial order of the circular orbits. They are added coaxially. The disc of the spiralgalaxy remains flat and all stars orbit rotating anticlockwise looking from the northern pole. All factors above result in a high galactic centripetal force and a large and flat disc - see below.

The Kepler laws predict a low velocity (e.g. 110km/s) of the stars on the edge of the spiralgalaxy – far away from the huge central mass. But measurements show mostly the highest velocities of the spiralgalaxy-stars on the edge. The cause can be the electrostatic repulsion which looks for orbits of the highest distances from each other. Therefore, the highly positive (X-ray active-) arms of the galaxy are on the edge with the most active stars (neutron stars, white dwarfs which often are named “high velocity stars”). Never can be a galactic arm found in the centre of a galaxy! The pinch effect forms the circular cross section of the arms. “Action is equal reaction!” Electrostatic repulsion needs a partner. Therefore the number of the arms is mostly two or four and they lay in the opposite positions related to the galactic centre. (The arm of a spiralgalaxy is still not clear in this electric galaxy model. Why do the arms suggest the rotation?)

## 2. 4 ELLIPTICAL GALAXIES

Also an opposite prove of this magnetic centripetal force exists. We clearly detect that the orbiting stars of an **elliptical galaxy** do not form parallel orbits to each other but they have random orbits. Their centripetal force (their gravity) is enough to keep them in the galaxis, but this force cannot create order of the orbits. Even if these orbits of positive stars form magnets, these observed random orbits should not result in a strong magnetic field of the elliptical galaxy. In fact elliptical galaxies have very low magnetic field related to spiralgalaxies therefore they prove the model. Only the electromagnetic centripetal force can produce this order as will be shown below.

Elliptical galaxies contain old stars, which produce little electricity (e.g. very few neutron stars).

We can compare the electric charge of a galaxy with the immune system of animals. Elliptical galaxies are often the biggest ones; therefore, even big galaxies remain in them during a collision. This means too many new stars in random directions in their body. This means too many disorders which cannot be forced into one direction as in the case at the very electric spiralgalaxies. Spiralgalaxies can eject few diverging stars (with the Lorenz force) because they have enough electricity and their small body let through colliding galaxies. The beautiful order of spiralgalaxies remains.

Elliptical galaxies stay in the centre of galaxy clusters because their gravity cannot eject diverging stars – even this impossibility makes them elliptical and sometimes very big.

The electrostatic repulsion of the positive charge of the galaxies can be the cause of the accelerated receding of the galaxies in the Universe. Every galaxy

repulses all other galaxy because all have the positive charge. Probably, the emitted light electron filaments fly among the galaxy clusters in the voids but also outwards. Receding galaxies and “their” emitted electrons form antiparallel currents which repulse each other they do not annihilate each other.

The resulting magnetic field of an elliptical galaxy is very weak because the elementary magnets (the circular orbit of the stars) are weak and they are order less. Perhaps these elliptical galaxies can still be stabilized by their normal gravity only because their stars are nearer to the centre i.e. their halo is not empty as the halo of the spiralgalaxies.

Oppositely to the galaxy model with dark matter (2.2), the electric galaxy model contains only normal masses and normal magnetic fields which are well known and measured since many decades. The new measurements show more and more this large dipolfield. The magnetfield of following spiralgalaxies show similarity to a dipolfield:

|           |           |
|-----------|-----------|
| Milky Way | NGC 4666  |
| NGC 4631  | NGC 6946. |

The cigar galaxy (M82) and the galaxy NGC 3079 show superwinds which leave the galaxy axially just against the strongest gravity and against the strongest centrifugal force. These red filaments of M 82 also show the positive charge of these filaments. These electric filaments probably trace the force lines of the axial galactic magnetic dipolfield. They obey the magnetic field and are totally free from normal “weak” or supposed “strong” gravity.

## **2.5 GALACTIC MAGNETIC FIELD AS CARRIER OF THE CENTRIPETAL FORCE**

The explanation of a galactic rotation without “dark matter” was appeared in 2007:

**E. Battaner and E. Florido [1]** reported (based on measurements of the galaxy NGC 6946 and Milky Way) that “the inner disc rotation is dominated by gravity...but magnetism is not negligible at radii where the rotation curve becomes flat, and indeed becomes dominant at very large radii....This magnetic alternative requires neither galactic dark matter (DM), nor modification of fundamental laws of physics...” Battaner and Florido found a “centripetal force at values of the order of 1 microgauss or even less”. (1 microgauss =  $10^{-10}$  Tesla)

They found the important role of gravity “at the inner disc” probably due to the short distances between the stars and the galactic centre. A higher magnetic component of the centripetal force is there “where the rotation curve becomes flat”. In this area the magnetic component is not smaller but the distances are longer and gravity is essentially (quadratically) weaker. The centripetal force via magnetism is “dominant” on the galactic edge where the neutron stars and other most positive celestial bodies take place due to their mutual electrostatic repulsion.

Battano and Florido describe the result of a totally new model which is quite opposite to all gravity models (to normal gravity or to supposed “dark” gravity).

The simple electric galaxy-model (2.3) can explain many important galaxy-measurements first of all the fact that all stars of a spiralgalaxy orbit in one direction: counterclockwise - (looking from the northern magnetic pole of the galaxy).

## **2.6 THE GALACTIC MAGNETIC FIELDS AND THE GALACTIC ARMS PROVE THE ELECTRIC GALAXY MODEL.**

Each hydrogen burning star separates the positive and negative electric charge via thermoelement-effect [8]. Interestingly, spiralgalaxies contain stars which all orbit in the same direction (2.4). This absence of “counter-rotation” results in an addition of the magnetic fields of the star-orbits due to their same directions. These currents together produce strong and huge dipole of magnetic field which fills the halo coaxially.

Already the existence of the galactic magnetic dipolfield supports the addition of the elementary magnetic fields of the star-orbits. Neutral celestial bodies of circular orbits would not create a magnetic field. Due to the observed fact that all stars orbit in the same direction, they create an integrated galactic dipolfield (which is measured since decades but plays no role in the dark matter model!)

The blue stars and red proton filaments of the galactic arms have high positive charge. These, the white dwarfs and neutron stars are “anodes” which attract electrons and radiate X-rays [9]. The neutron stars emit cosmic rays [9] which make the whole arm very positive in addition. These very active areas are on the edge due to the mutual electrostatic repulsion. They remain in the galaxy due to their high Lorenz-force in spite of their high velocity. In fact they are known as e.g. “high velocity neutron star”.

The arms are not continuous - the missing sections are probably magnetically bridged. A magnetic field covers continuously the arms. The strong magnetic field between two arms is probably the cross section of the field of an electric conductor. This magnetic field suggests that the arms somehow electromagnetically function, sorry, not details are known. Present (mostly mechanical) arm-theories do not show any from the measured magnetic fields therefore they have since decades no value.

## **2.7 THE IMPORTANT SECONDARY ROLES OF NORMAL GRAVITY IN SPIRALGALAXIES**

Does gravity of the normal matter play any role in a spiralgalaxy? Yes, this force is really important – even if this normal gravity is too weak to play the role of the whole centripetal force of the spiralgalaxies.

- Gravity created and creates stars, it holds their mass together. (Gravity does not hold the whole galaxy together. It is weaker than the centrifugal force.)
- Gravity created the galaxies in the first gigayears when the Universe was neutral but denser. Probably the galaxies were smaller, therefore the attraction stronger. The galaxies receded in slow down. (The alleged accelerator: the “dark energy” was somehow inactive!)
- The separation of the electric charge via thermoelement-effect first needed to overcome a very long zigzag way of the electrons from the core of the star to the surface of the star. This way needs gigayears. The positive charge in the stellar core does not act electrically. It has plasma above it.
- Supernova measurements suggest the start of the accelerated receding (i.e.electricity!) after the first 8 gigayears. “Dark matter” theories have no idea, how did the “dark energy” stored and after 8 gigayears activated.
- The light electrons easily surpass the normal gravity of the galaxies in filaments and fill in flight the voids of the Universe. Without the normal gravity - which retards the heavy particles - this charge separation would be not possible.
- Gravity saves the form of the galaxy in the direction of the rotational axis.



- Gravity creates perhaps 10% of the whole necessary centripetal force of spiralgalaxies. (The counterrotating stars will be ejected by the electromagnetic Lorenz-force.)
- Probably gravity creates the whole necessary centripetal force in the elliptical galaxies due to the short distances between the stars and the centre.
- Gravity makes the escape of the positive matter slower (M 81). Therefore, the positive charge acts stronger and longer in the body of the galaxy.
- Stars either binaries or those with planets have too low electric charge. They have gravity as the only centripetal force.
- Stars emit electrons. They emit also proton storms and other emissions containing ions. The heavy matter remains at the star via normal gravity. This positive charge orbits and gives a centripetal force via Lorenz-force along the orbit to the star.
- Moreover, gravity is important in the orbiting of the rings of e.g. Saturn which are formed to filaments via pinch-effect but are stabilized by gravity of the Saturn. The Crab has similar but X-ray rings.

Dr. B. Lukács (2008) suggested that this asymmetry of the stars - orbiting the galaxy in one of the neutrally two possible directions - can reveal the far galaxies consisting of antimatter – if they exist. Antimatter stars have exactly the same spectra as our Sun – e.g. the same yellow Sodium lines. Up to now no possibility existed to find antimatter-galaxies. However, antimatter galaxies orbit into the opposite (clockwise-) direction seeing them from their northern pole. We can now prevent the shake-hand with an alien from antimatter: it would be lethal for both! (We still should discover the observation of the galactic northern pole.)

### **3.8 WE WOULD NOT EXIST IF DARK MATTER EXISTED**

A “high velocity neutron star” can have a velocity up to 1600km/s there where normal gravity produces an escape velocity of only about 310km/s for the Sun.

This “high velocity” neutron star does not leave the galaxy for ever – having only “escape velocity in gravity-field”. The Lorenz force retards it “automatically” with a much higher centripetal force than gravity can do. They do not have “escape velocity in magnetic field”.

Gravity is independent to the electric charge but the Lorenz-force is proportional to the electric charge. Therefore, the high velocity neutron star will be not lost in the reality. Later a new supernova will produce a newer neutron star with higher velocity (of e.g.1900km/s), but it will get automatically a higher magnetic centripetal force. This new star will also be not lost!

Without young neutron stars in a galaxy, the biologic development would be very slow if any. The DNS molecules would change very slowly because the cosmic rays had a very low concentration. Life would be on a very low level in the Universe. Perhaps life-stage on oldest planets would be now that of green alga.

Our presence proves the galactic Lorenz-force. This force retards the new neutron stars and sustains a quick biologic development.

### **3. CONTRADICTIONS:**

### **3.1 DARK MATTER EXISTED ONLY ALONG SOME YEARS.**

Dark matter does not have dark-atoms. "Dark hydrogen" was not found (not in the theory - not in particle-accelerators). Similar to the normal matter of the stars, dark matter attracts itself with its gravity and produces higher and higher concentrations. In the stars, however; the hydrogen and helium atoms get this energy of contraction and their velocity produces a gas pressure which inhibits the concentration without limit, i.e. the black hole. For gigayears or for ever these stars survive.

"Dark matter" however, finds no limit of concentration without "dark atoms" and falls into self-made black holes. If dark matter ever existed, to-day it would not exist.

### **3.2 BIG BANG SHOWS NOTHING FROM THE "DARK" PROCESS**

The alleged "dark mass" of the huge amount of 25 times of the normal matter (Fig.2) cannot be found in the description of the Big Bang! This Big Bang fills out its each seconds firstly with nuclear and later with atom-processes exactly following normal physics. However, no empty seconds remained which can be now filled with "dark processes". For the Big Bang, "dark matter" and "dark energy" are not existent.

### **3.3 WE DO NOT OBSERVE THE HUGE "DARK MASSES"**

If we took the alleged invisible huge "dark masses" into account, we should find a strong brake on each of the motion of normal masses. Especially the receding of all galaxies should be braked because each of the galaxies should move about 20 time's higher dark masses! No collision is necessary for this braking process, the mutual attraction via gravity is enough. The motion energy of a certain galaxy is transported via mutual gravity into dark matter in the galaxy – cluster. This contains dark matter of 100 times of galaxy-mass. The logic result would be the strong brake of this galaxy, but measurements clearly show an accelerated flight of this galaxy! Similar to a ship which meets an island of 1000 small icebergs in the northern Atlantics, should not swim accelerated but braked in this island of icebergs! All galaxies should be braked but all of them fly accelerated!

### **3.4 ALL MATTER HAS ANTIMATTER BUT "DARK MATTER" DOES NOT!**

Electron has an antimatter-pair: it is the positron. Hydrogen has antimatter partner: the antihydrogen. However, dark matter does not have anti-dark matter partner - neither in theory nor in praxis. The only logic explanation is that dark matter does not exist.

### **3.5 THE UNIVERSE AND ALL ITS PARTS OBEY THE QUANTUM THEORY, "DARK MATTER" AND "DARK ENERGY" DOES NOT! (DO THEY EXIST?)**

Since two millennia, mankind knows the atom-theory. Matter cannot be distributed infinitely. "Half atom" cannot exist. Even energy exists in quantum's – invented Max Planck a century ago. We live in a World of quantum's.

Now in the last years, "dark matter and dark energy" appear again in the perfect distribution. The only logic explanation is that they do not exist.