

Galaxy Formation and Evolution according to Quantum FFF Theory.

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Abstract.

New astronomical discoveries have recently questioned about our current standard model based understanding of galaxy formation and evolution. The distribution of dark matter point sources around galaxy clusters and dwarf galaxies, the so called “Red Nugget” galaxies and strange behaviour of dwarf galaxies concentrated into layers at both sides of spiral galaxies are examples of this standard model deviation.

Reason to search for possible solutions, which I present here, based on the Quantum FFF Theory. (Function Follows Form in sub quantum stringy particle physics)

Introduction,

According to Quantum FFF Theory, the FORM and MICROSTRUCTURE of elementary particles, is supposed to be the origin of FUNCTIONAL differences between Higgs- Graviton- Photon- and Fermion particles.

As a result, a NEW paradigm splitting, (with Gamma Ray Bursts) accelerating and pairing Black Hole seems to be able to accelerate itself by a -Zero Point Energy driven-self created plasma tails, to form dumbbell systems, called Herbig Haro systems, as the start of Bok globules and new star formation in between these dual- or multiple black holes, kept apart by Birkeland current related particle jets.

Several examples of such pairing and splitting into HH objects and Bok globules is observed inside the Carina nebula.

These small black holes inside the Carina nebula are supposed to be remnants of Supernovas or even at a smaller scale remnants of comets or former Starspots like our own Black hole based Sunspots.

This is also reason to suppose that what we observe here at a small scale should have happened directly after the Big bang and the origin of the so called Fractal shaped Lyman Alpha Forest..

As a consequence, this phenomenon is an extra support for the Quantum FFF theory based Big Bang model as the splitting process of a former Big Crunch black hole into a symmetric raspberry shaped multiverse.

The recent observation of bipolar butterfly shaped planetary nebula aligned with the plane of the milky way, should be a direct result of the way Herbig Haro objects are created by pairing and receding dual black hole systems.

Quantum FFF (Function Follows Form) theory states, that the vacuum is seeded with fast oscillating massless Higgs particles (dark energy) , oscillating along a complex chiral tetrahedral vacuum lattice, which has the ability to transfer Photon and Graviton FORM information in bunches of oscillations (in wave form) , through the vacuum lattice with the local speed of light. Ref [13,18,21]. As a consequence there are no attraction forces on propeller shaped Fermions. Gravity seems to be the result of two different impulse arrays: the massless Higgs impulse array and the (less effective) massless Graviton impulse array. As a consequence, new paradigm Black holes suffer only from the gravitational influence of Higgs vacuum (photon) impulses also coined Casimir push-gravity, because no gravitons can escape from the Black hole. The Black hole is supposed to be a super dense knot of Higgs particles floating inside the oscillating Higgs vacuum frame. (Fig. 6) and (Ref. 7,8,9,11,13,17).

No photons like gravitons can escape from inside the Black hole. However, in Q-FFF theory, the vacuum is constantly “eaten” by these NEW Black hole nucleus and the origin of the Casimir gravity effect of Black holes..

In the Q-FFF model, Fermions are assumed to have a propeller shape equipped with a left- or right hand “pitch” Quarks and some leptons are compound particles (with photonic gluons) however, electrons and positrons are singular. (Ref. 18)

Only the statistical sum of the different kinds of vacuum impulses (butterfly shaped vector arrays) by real collisions from all directions on Fermions are responsible for all (energetic) phenomena in the universe. (Fig 3,4)

The polarisation and so called spin flip of Fermions around Black holes is the origin that Black holes are equipped with a narrow Fermion repelling globular horizon.

As a result, Black holes are Zero Point Energy driven electric generators with negative charge at the outside and positive charge at the inside.

The Fermion repelling horizon of Black holes (fig.7,8,9) is also the origin of vacuum polarisation between pairing Black holes leading to the fast creation of Stars by Stellar Anchor Black Holes (SABHs), Galaxies, (Cygnus A: fig 5) Herbig Haro objects, the pairing of Sunspots Alfvén circuits and Birkeland currents.

The accelerating plasma tail of NEW paradigm Black holes (fig9) (Ref.17), and the splitting Black holes into smaller pairing Black holes is supposed to be the origin of a smooth proliferation of Black holes and downsizing after the big bang of star magnitudes.

The Eagle Spire Nebula, (fig. 1) in the Carina and other nebulas, are examples of a smooth proliferation of down sizing by splitting Black holes through Galaxies and Nebula.

We observe in these nebulas the pairing and splitting of Black holes ending up into multiple Herbig Haro objects (double stellar anchor Black hole systems) generating Hydrogen gas around the two black holes in addition with Birkeland Current systems as accelerating origin of fast new star formation and the start of open star clusters.

Consequently the electric energy production of Stellar Anchor Black Holes (SABHs), seem to be able to explain quick Star- and Galaxy formation, by Birkeland Currents, Alfvén Circuits. However, smaller (new paradigm) Black holes (created by magnetic interference and Radio Frequency currents) are supposed to be responsible for Sunspots, micro-Comets, Ball

Lightning and even as multiple so called Quantum Knots inside Plasma Balls in the laboratory..

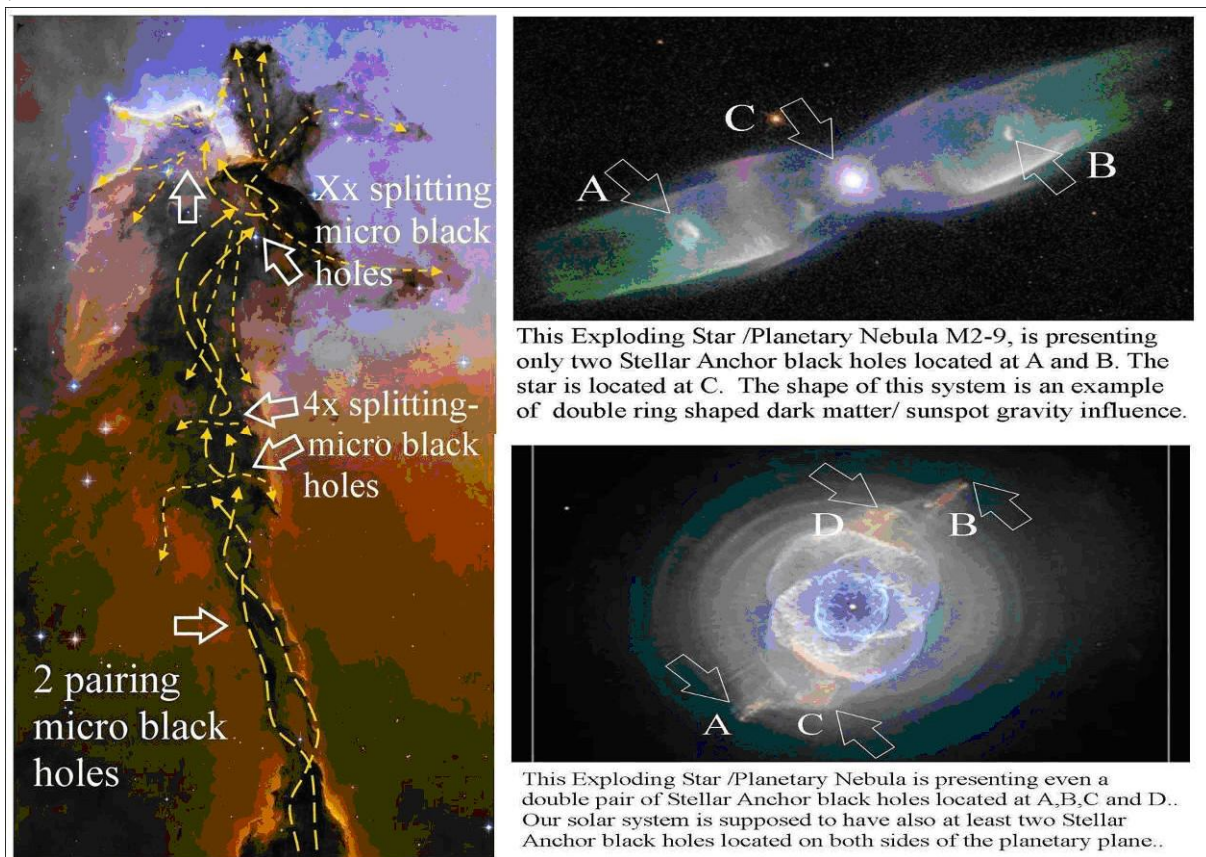


Figure 1, The Spire Eagle nebula, with two Planetary nebula, examples of the gas production and concentration effect of Black holes in the electric universe.

The origine of Double MWC922 interference rings

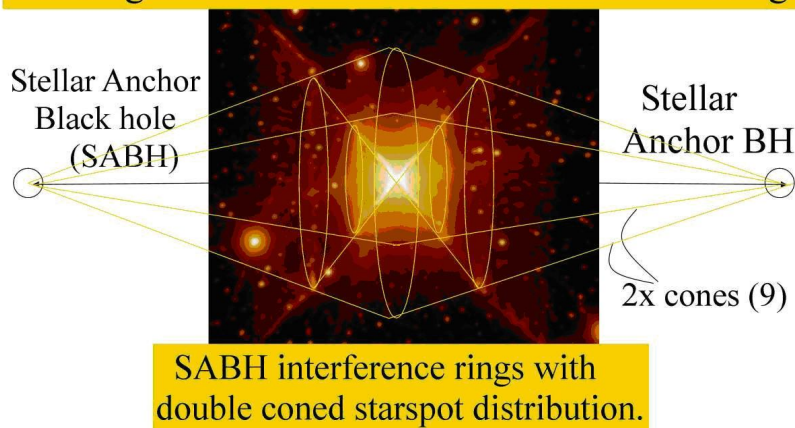


Figure 2, The Red Square Planetary nebula MWC922, equipped with double cone structure of expelled material including trailing starspots (Micro Black Holes). There are FOUR cones (figure 3) of interferences originated by the two Stellar Anchor Black holes (SABHs). These four cones seem to interfere with the TWO cones of expelled material of the star, leading to FOUR rings of interference.

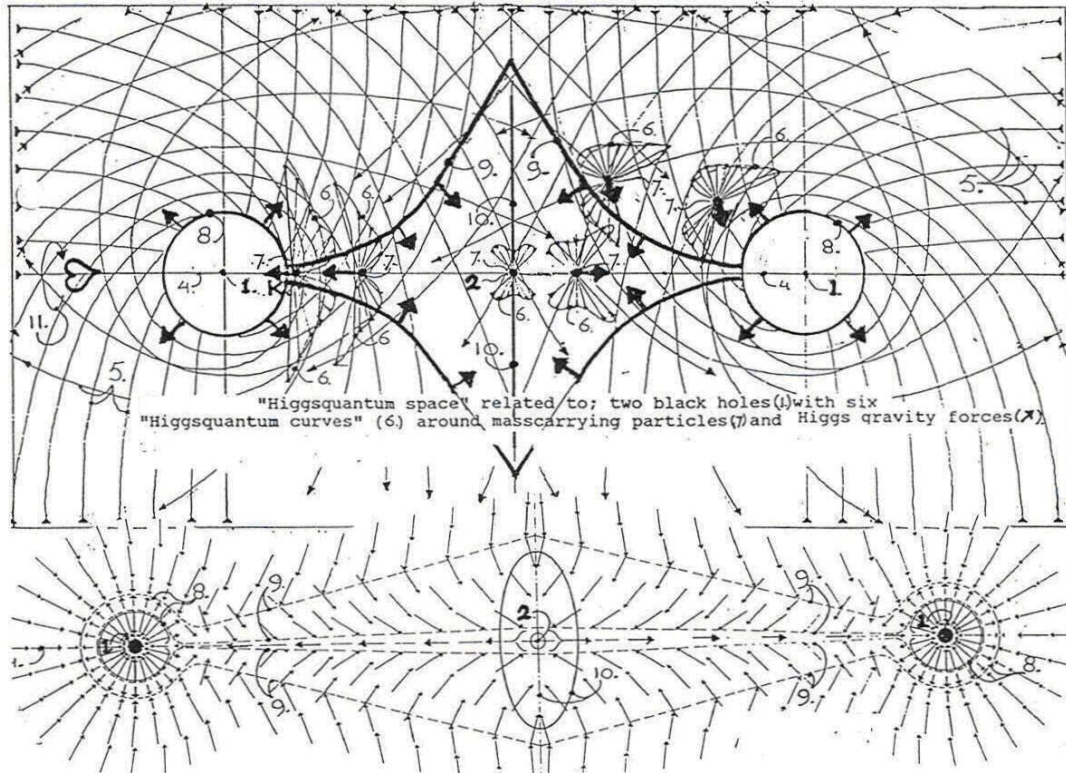


Figure 1, Higgs Vacuum structure around a set of two Black holes, as is found to be present around some Planetary nebula, early Galaxies and Herbig Haro objects. The negative charged particle jets is the result of the Black hole based electric potential combined with the vacuum polarisation (acceleration) effect on light Fermions like electrons and the origin of Birkeland currents and Alfvén circuits.

Dumbbell system of new paradigm Black holes kept apart by two Herbig Haro electron-ion particle jets. Zero Point energy pressure effects around test masses are depicted as butterfly shaped vacuum pressure vector array curves. In Q-FFF theory, the vacuum gravity pressure is interpreted as Dark energy and Black holes as Dark matter. The central “White-Grey hole” is always the place for gas concentration by electric Birkeland current pressure of all open star clusters and Spiral Galaxies. Only Globular star clusters and some Dwarf elliptical Galaxies will show central massive Black holes.

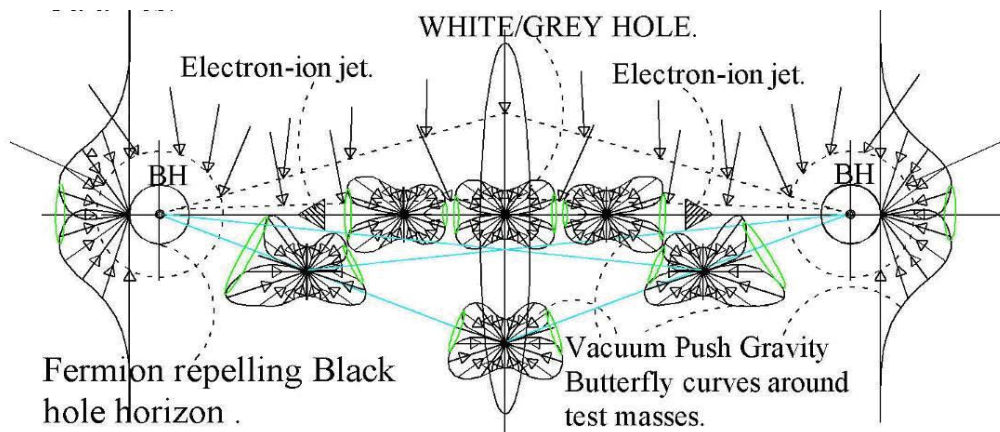


Figure 4, The same Birkeland current system as figure 3 with butterfly vector arrays at different locations around the Black holes. In the middle the vacuum has less density (larger Planck lengths) by the absorption of the dual Black holes.

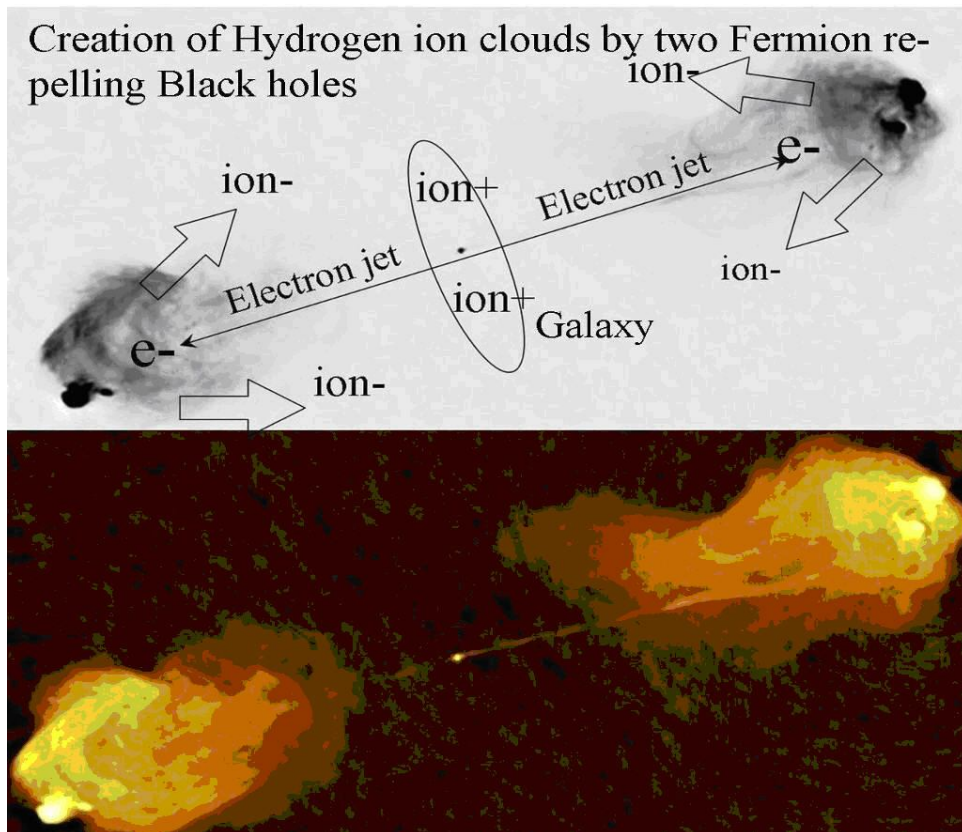


Figure 5 Cygnus A equipped with dual hotspots with gas production and electron jet including Birkeland currents and gas transportation by Alfvén circuits.

The Nucleus of the NEW Black Hole.



A ball of Stringy particles compressed by the oscillation energy of the NEW Higgs vacuum Lattice= DARK ENERGY. The BH Nucleus itself is DARK MATTER.

Figure 6, Impression of a Quantum Knot based nucleus of the new Black hole.

The OLD and NEW Black Hole differences.

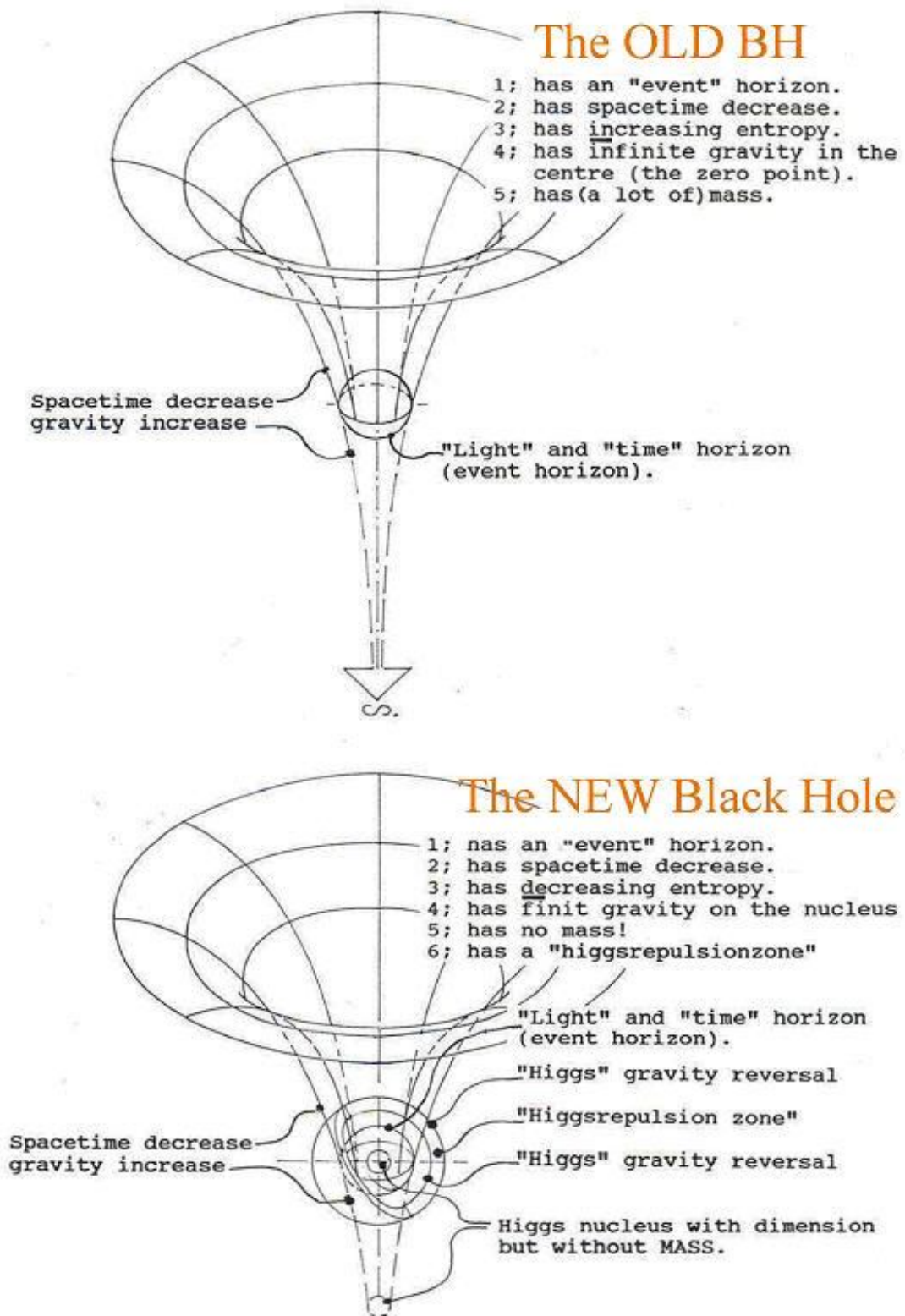
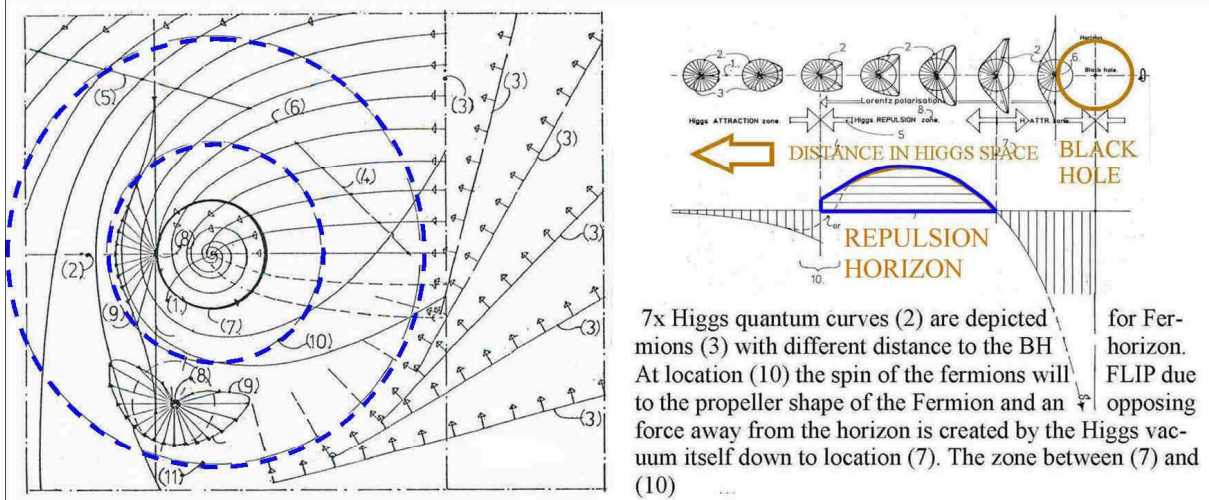


Figure 7, The difference between the old and new paradigm Black hole according to Quantum FFF Theory .

Fermion repulsion zone 10-11 around a Black hole, with Photon and Higgs trajectories around a NEW paradigm Black Holes.(Quantum-FFF Theory)



- 1: Non rotating Black hole nucleus (in 2D cross section).
- 2: Reference axis for trajectories 4,5 and 6.
- 3: Other incoming photonic/Higgs fronts (without depicted trajectories)
- 7: High photon energy collider globular shell, with intense Quantum effects like pair production (e^-e^+). 8: test masses.
- 9: Butterfly shaped Higgs/photon Fermion pushing curves in 2D.
- 10 and 11: Fermion repulsion zone. Due to the propeller shape of the Fermions, they will experience a so called "Spin Flip" in this zone.

Figure 8, Principle of Fermion repulsion around a Black hole according to Quantum FFF theory..

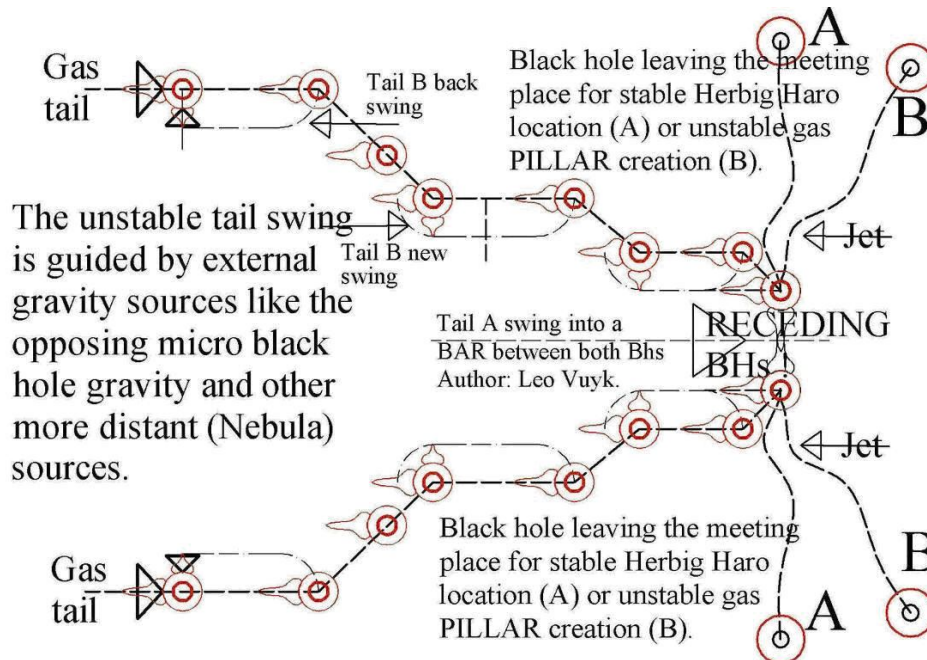
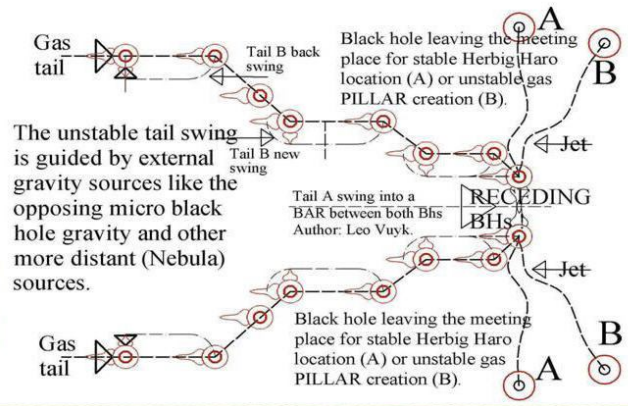
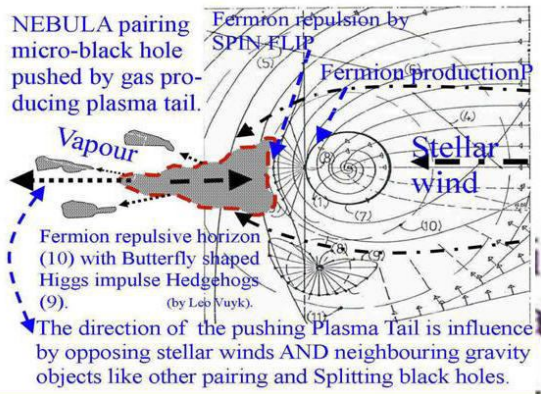


Figure 9, New Black hole propulsion principle by a self produced plasma-dust tail, also responsible for dust Pillar creation and the pairing and spitting effect as observed in nebula like the Eagle and Carina nebula.



Several accelerating pairing and receding micro black holes, as the start of HH objects, in the Carina nebula, with temporary meeting place (A) and ionised plasma tail. (Quantum-FFF Theory)

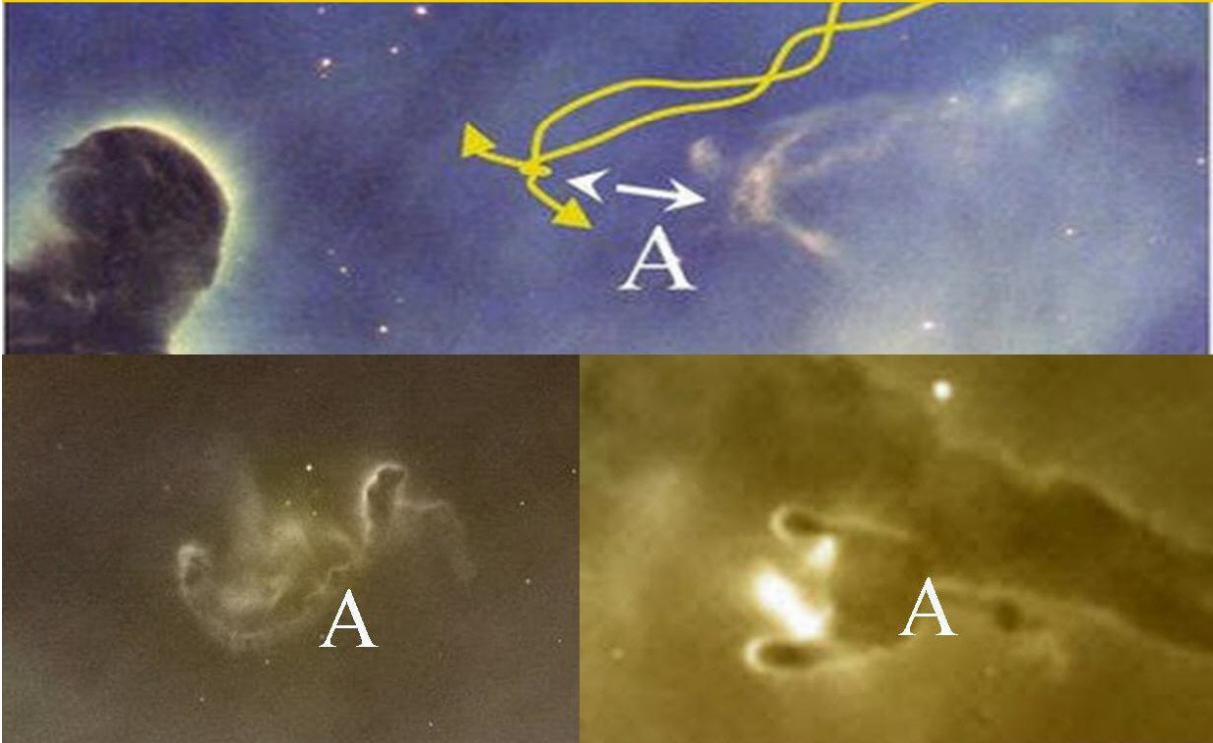
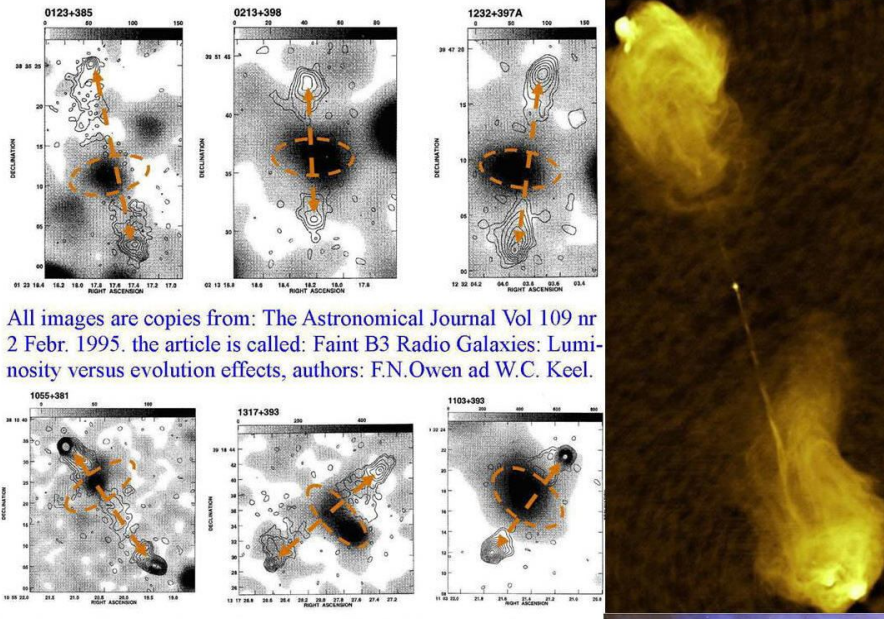


Figure 10, Three examples of pairing and splitting small Black Holes inside the Carina nebula.



All images are copies from: The Astronomical Journal Vol 109 nr 2 Febr. 1995. the article is called: Faint B3 Radio Galaxies: Luminosity versus evolution effects, authors: F.N.Owen ad W.C. Keel.

Figure 11, Cygnus A (right) is one of the best examples of Birkeland current driven gas concentration between dark matter Galaxy Anchor Black Holes (GaBHs) (fig 5) . Even in the early universe these dumbbell structure have been found like the “Faint B3 Radio Galaxies” (Owen and Keel)

Examples of “new” black holes, accelerated by self produced H₂ gas tails leaving gas pillars behind and splitting into Herbig Haro Objects (like HH555) to form a star forming centre in between, according to Quantum FFF Theory.

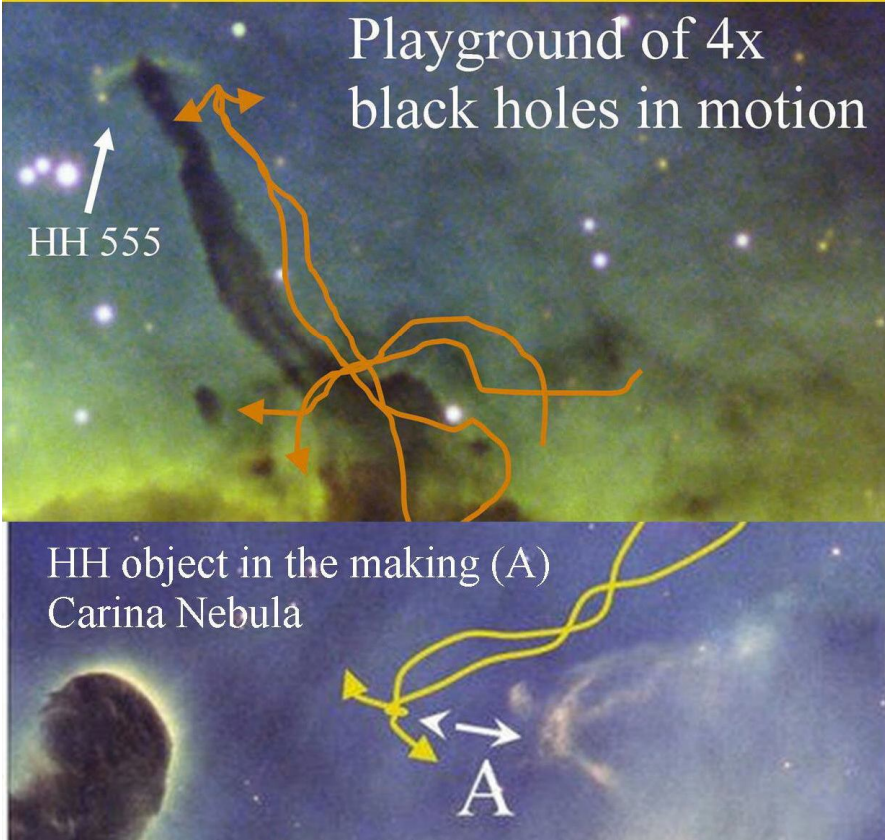
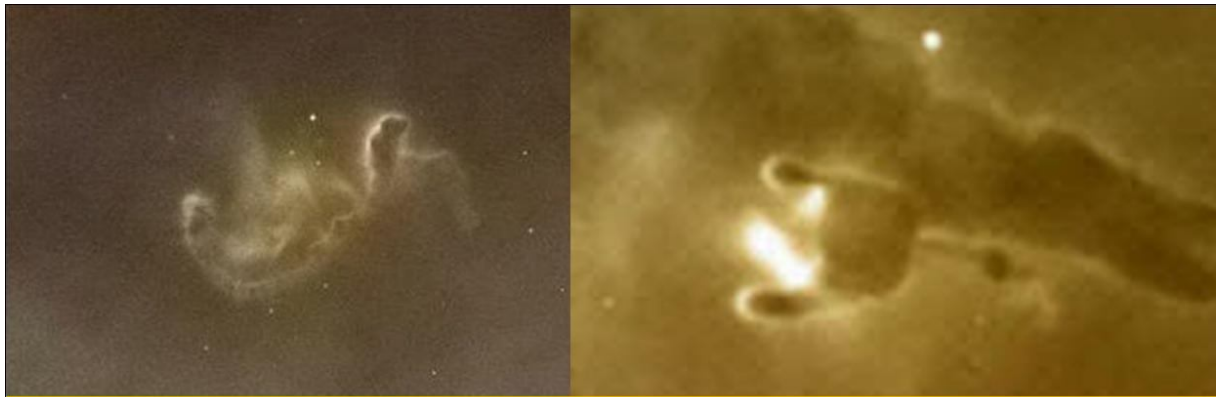


Figure 12, Pairing and splitting new oaradigm black holes the origin of gas pillars HH objects and Bok globules.



Pairing and splitting new paradigm Black holes (above) as vacuum dust gatherer and the origine of Gas pillars, HH objects and BOK globules according to Quantum-FFF Theory.



Bok globule with complex pairing and splitting black hole trajectories (Carina nebula)



Figure 13, The new paradigm black hole as vacuum dust cleaner and gatherer, Hydrogen gas production and Bok globule creation.

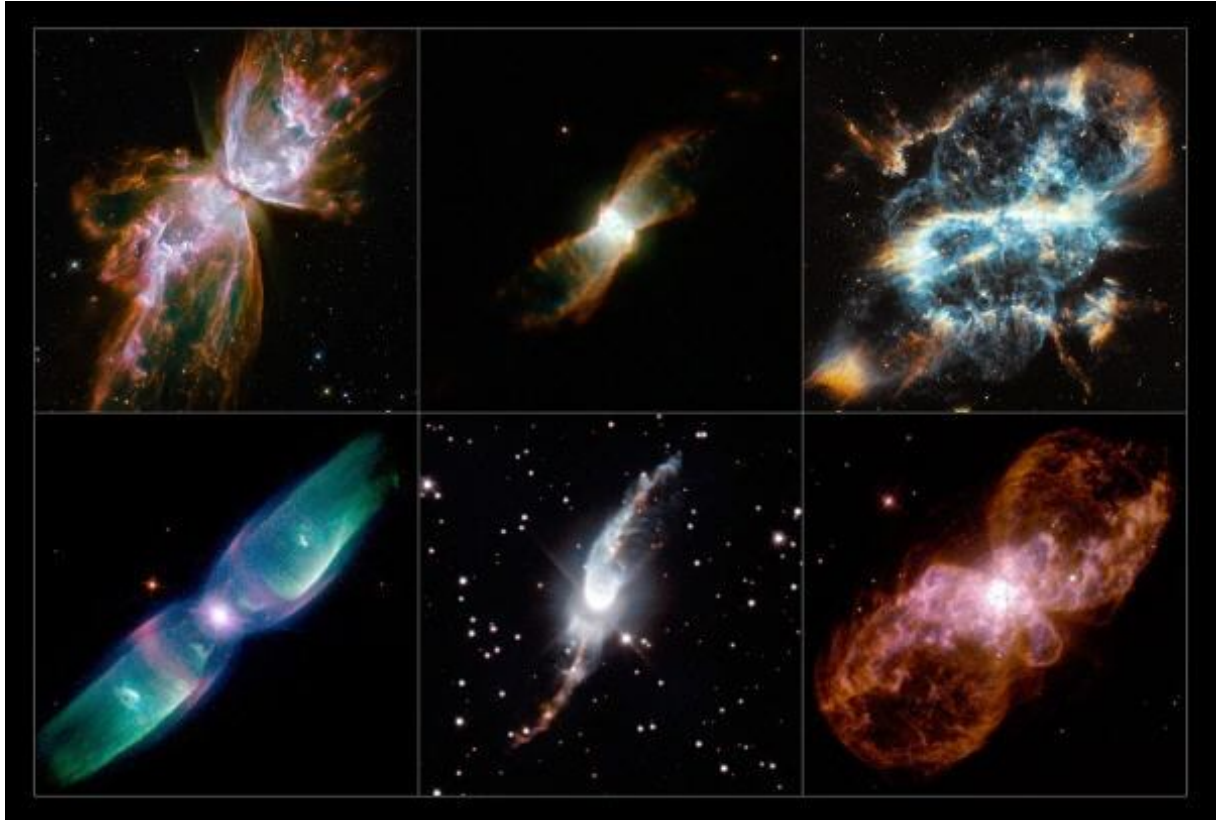


Figure: 14, the majority of the bipolar planetary nebula in the Galaxy bulge area, seem to be aligned with the long axis parallel to the Milky way galaxy plane. (B. Rees and A.A. Zijlstra, Univ. of Manchester UK) Alignment of the Angular Momentum Vectors of Planetary Nebulae in the Galactic Bulge

According to Quantum FFF theory, the origin of the bipolar planetary nebula alignment phenomenon is to be found by the quantum gravity and electric effect of the central region of the galaxy.

1: The vacuum around the centre of the galaxy (bulge) is supposed to be diluted due to the multiple Galaxy Anchor Black Holes (GABHs) floating at both sides of the galaxy plane. See the Higgs vacuum array distribution around the Galaxy centre (fig 3)

As a result, there is a strong Casimir alike push on all Fermions like plasma tails connected to SN black holes to polarize and swing into the direction of the MW centre, pushing the SN black hole out of the centre of the galaxy.

2: Secondly as a result of the negative electrical charge of all black hole plasma tails and the positive charge of the centre of the galaxy, all Super Nova black holes will have the tendency to be pushed away from the centre by their plasma tails.

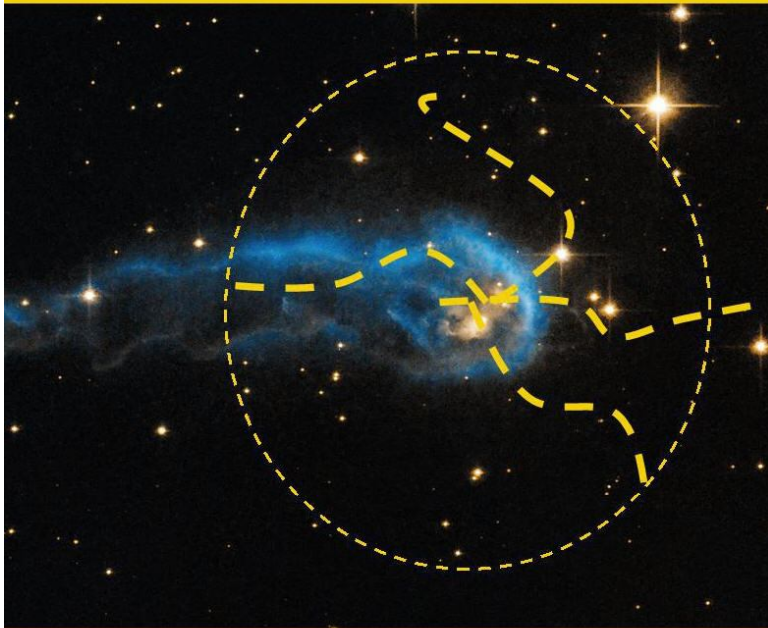
Conclusion:

According to several observations of pairing and splitting black holes, we may conclude that there is a relation between the initial flight direction of two pairing black holes (before splitting apart), and the direction of splitting and receding of the two black holes, which is more or less perpendicular to the initial flight direction. (fig. 9 and 15)

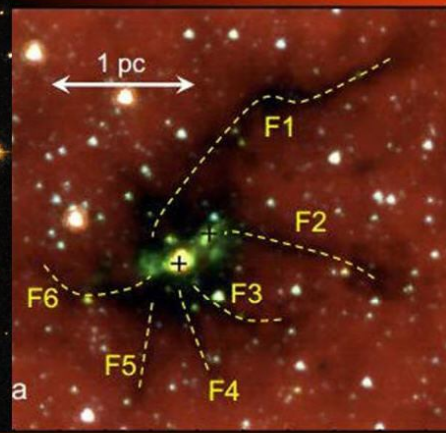
This phenomenon seems to be a firm indication for the observed Pn alignment with the galaxy plane.

The future of the Tadpole or Caterpillar Nebula according to the new paradigm Black Hole pairing and splitting /receding process of Quantum FFF Theory.

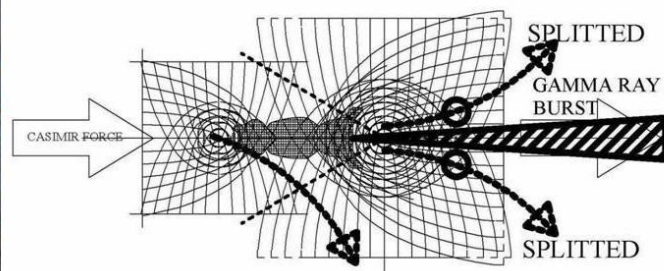
The tadpole nucleus is assumed to form a “Mutiple Herbig Haro system”, (gas cloud filaments, as observed in SDC 335, 1,-6) as a start for fast massive star formation and an open star cluster.



SDC 335 with gas filaments as multiple Herbig Haro objects



The Nucleus of the Tadpole nebula seems to be a combination of different- and medium sized black holes. According to Q-FFF theory this is a base for “Black Hole Splitting” by a collision process with a so called Gamma Ray Burst as result.



The multiple nucleus of the Tadpole nebula and the Q-FFF principle of the black hole splitting process with GRB burst as a result

Figure: 15, The future of the Caterpillar or Tadpole nebula (IRAS 20324-4057) according to Quantum FFF theory and compared with the complex filamentary gas cloud SDC 335. with Gamma ray Burst as one of the features.

GAMMA RAY BURSTS (GRBs) explained by new paradigm black hole splitting.

Two approaching equal sized black holes are supposed not to split but originate a Herbig Haro object, often found inside star forming nebula. However we found multiple examples, e.g. inside the EAGLE NEBULA of traces of “splitting black holes”.

We suggest that such a splitting process should be triggered by the collision of two unequal sized black holes. The smaller black hole is supposed to be able to split the larger black hole by its concentrated imprisoned electron jet and local vacuum deformation.

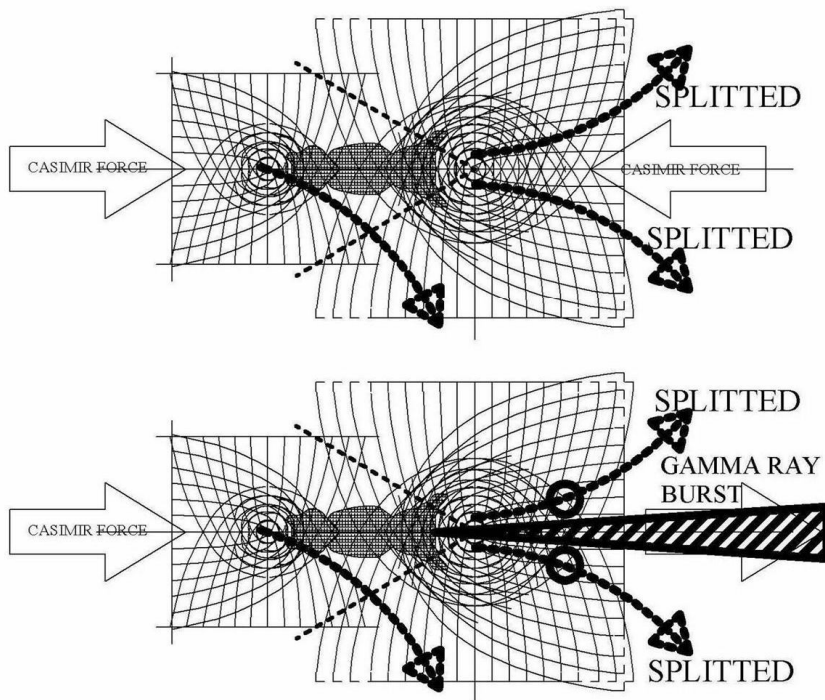
The result however is that the splitting process unleashes a BURST of electrons in-between the parts of the splitted black hole which can be described as a CATAPULT ejection.

As a consequence however, this Gamma ray Burst ejection should be “one sided” in stead of the two-sided ejection suggested by mainstream astronomy.

At the same time this seems a rational base for the fact that Gamma Ray bursts are so rare and able to travel well focussed over long (cosmological) distances.

The origin of Gamma Ray Bursts, by splitting black holes of different size, leaving three BHs behind. Two of them could form a Herbig Haro Object with a dumbbell structure. (Quantum FFF theory@Leo Vuyk).

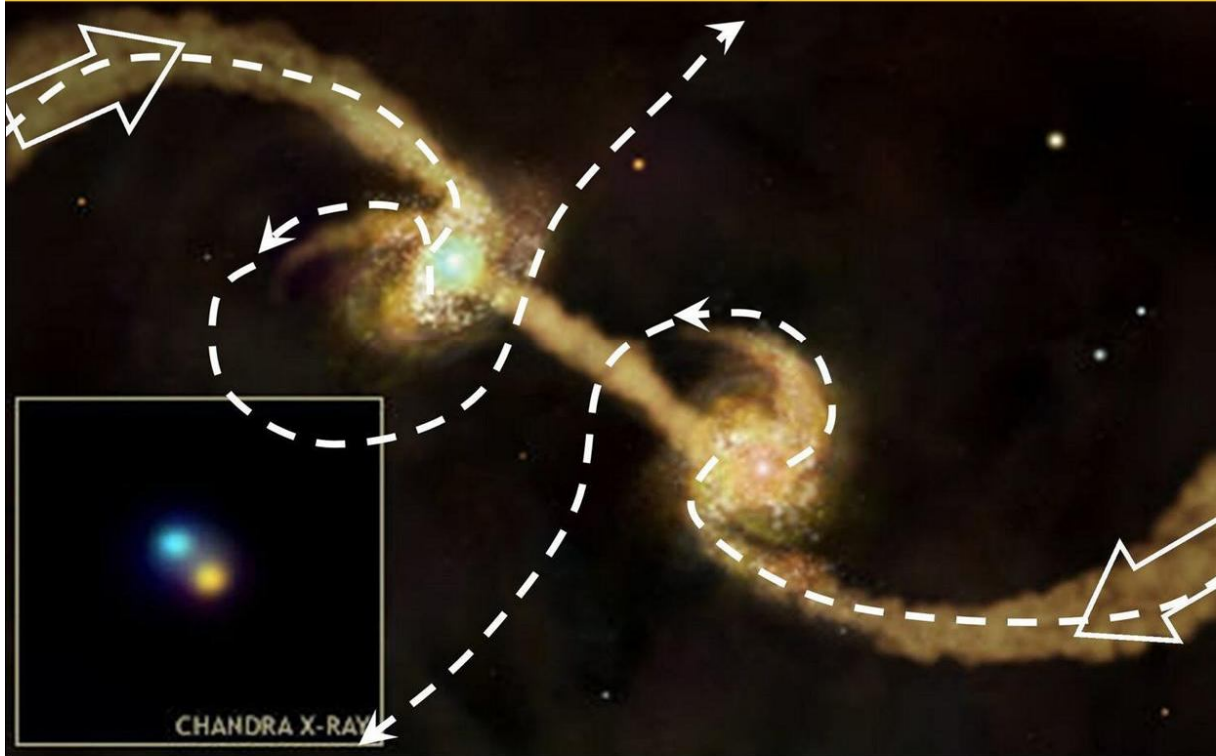
TWO REPULSIVE ION TAILS around electron jets (bar shaped) between two DIFFERENT sized black holes. THE SMALLER BLACK HOLE WILL SPLIT THE LARGER ONE BY ITS CONCENTRATED ELECTRON JET AND VACUUM INFLUENCE. Author: leo Vuyk.



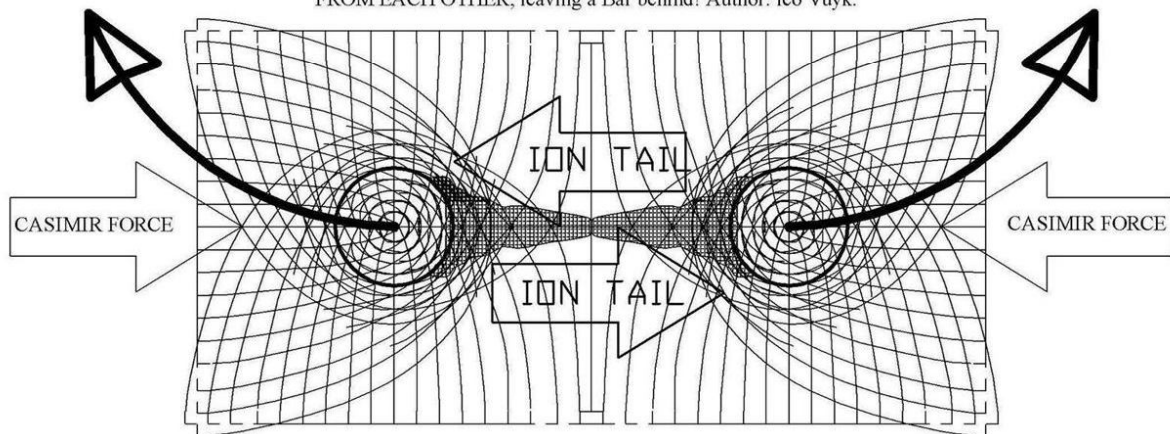
Only the smallest BH is able to split the larger black hole, leading to a proliferation of smaller equally sized BHs and Herbig haro Objects.

Figure: 16. The origine of Gamma Ray bursts.

Typical form example of pairing black holes of the same size, leaving ion tails and a bar behind before separating to a stable dumbbell position @Leo Vuyk



TWO REPULSIVE ION TAILS (A BAR) BETWEEN TWO EQUALLY SIZED BLACK HOLES, PUSHING TWO BHs AWAY FROM EACH OTHER, leaving a Bar behind! Author: leo Vuyk.

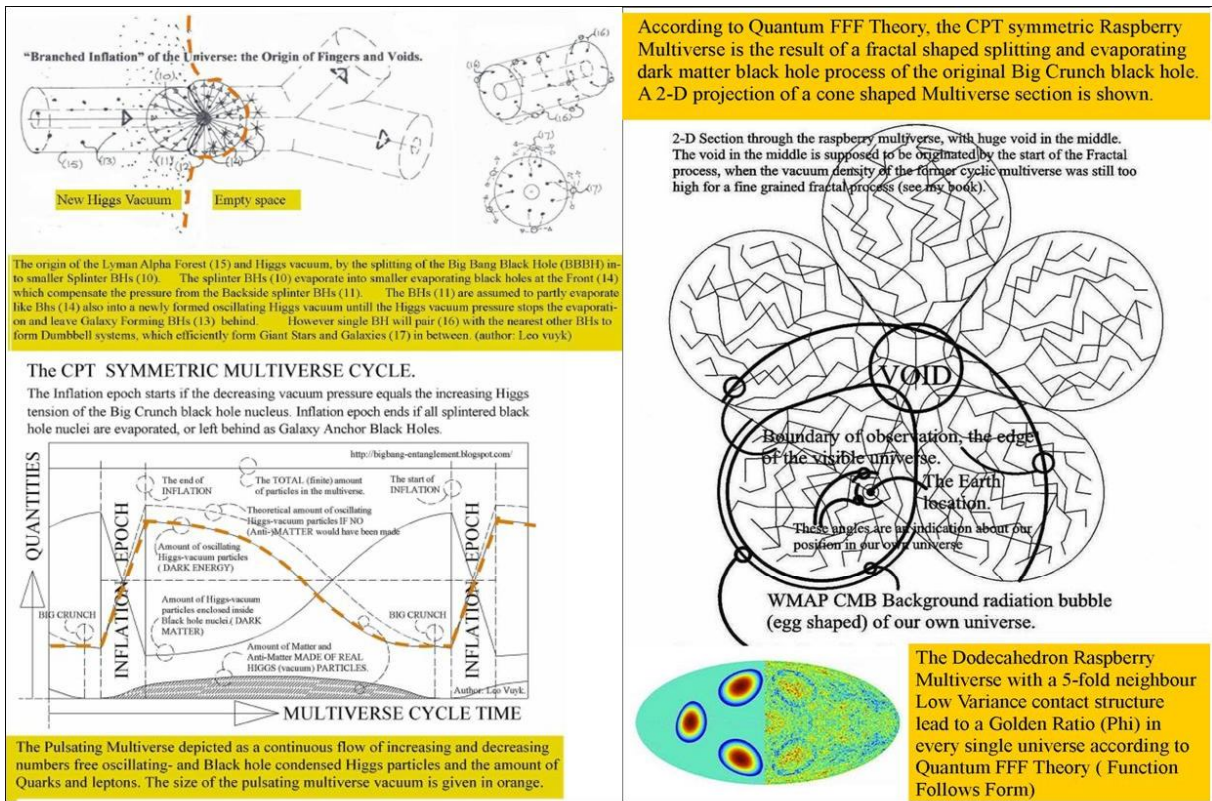


The casimir pressure structure of the Higgs dark energy vacuum around Pairing black holes

Figure: 17, Galaxy and central bar formation.

Quantum FFF Theory elements:

- 1: Dark Matter is the same as Black Holes which consume gravitons.
- 2: Dark Energy is the same as the Higgs Field with Casimir and push gravity effect.
- 3: Dual push Gravity = Attraction (Higgs-Casimir opposing Graviton push).
- 4: The Big Bang is a Splitting Dark Matter nucleus based Big Bang Black Hole (BBBH) into smaller primordial Dark Matter Splinters and evaporation into energetic oscillating Higgs particles structured inside a tetrahedral but chiral Higgs /Casimir Dark Energy field.
- 5: Consequently Primordial Big Bang Black Hole splinters (PBBS) produce the energetic Dark Energy Higgs field by partly evaporation.
- 6: Dual PBBSs produce plasma in giant Herbig Haro systems as a base for Giant stars in open clusters as a jump-start for Spiral Galaxies.
- 7: Spiral Galaxies keep both Primordial Black Holes as Galaxy Anchor Black Holes (GABHs) at both sides of the equatorial and plane long distance.
- 8: After Galaxy Merging these GABHs are the origin of Galaxy- and Magnetic field complexity and dwarfs.
- 9: Dual and single Black Hole systems produce Plasma (fig28) out of the Higgs field (observed in many galaxies like Cygnus A) by horizon quantum fluctuations. Two Higgs particles are convertible into symmetric electron and positron propellers (Quantum fluctuations).
- 10: The chirality of the (spitalling) vacuum lattice is the origin our material universe. (propeller shaped positrons merge (pinch) first with gluons to form (u) Quarks. (fig 28)
- 11: The first Supernovas in the early universe will be produced by giant stars and are supposed to produce large Super nova black holes. These first giant SN black holes will be the base for secondary Herbig Haro systems to produce secondary open star clusters..
- 12:



Combination poster for Quantum FFF Theory. (Function Follows Form). Dark Matter Black Hole splitting Big Bang (above) and Electric Fermion repelling black holes (below)

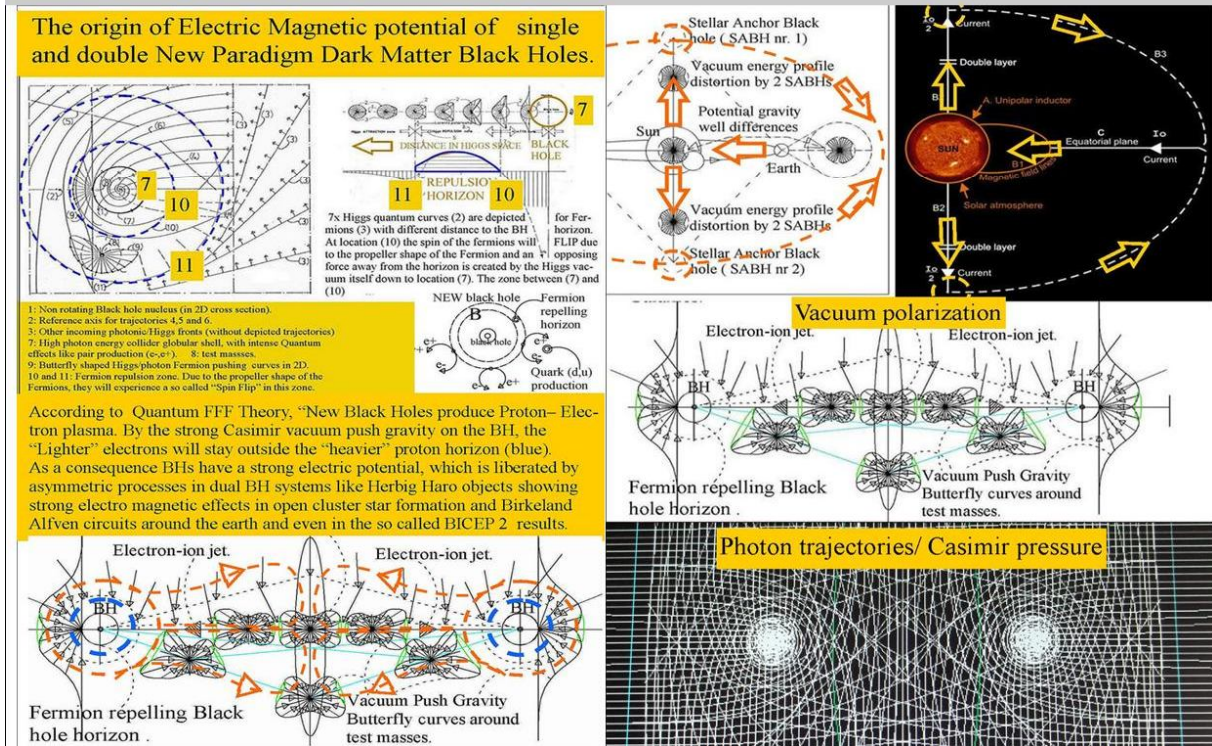
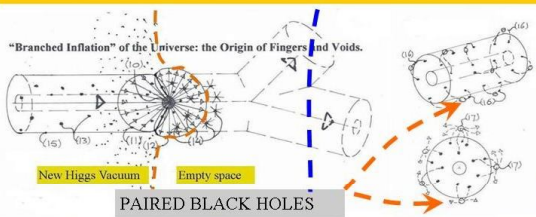


Figure 18,

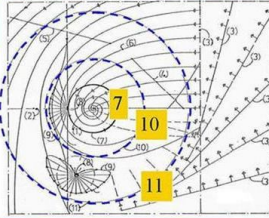
Red Nugget Galaxies are supposed to be formed around SINGLE (left over) dark matter black hole splinters of the big bang and the absence of Alfvén electric circuits and frequent Super Nova BH multipliers.

According to Quantum FFF Theory, the CPT symmetric Raspberry Multiverse is the result of a fractal shaped splitting and evaporating dark matter black hole process creating the Lyman Alpha structure in the universe.

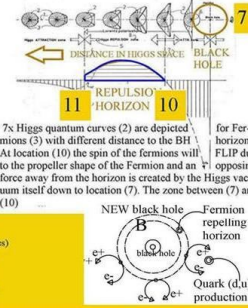
The origin of Electric Magnetic potential of single and double New Paradigm Dark Matter Black Holes.



The origin of the Lyman Alpha Forest (15) and Higgs vacuum, by the splitting of the Big Bang Black Hole (BBBH) into smaller Splinter BHs (10). The splinter BHs (10) evaporate into smaller evaporating black holes at the Front (14) which compensate the pressure from the Backside splinter BHs (11). The BHs (11) are assumed to partly evaporate like BHs (14) also into a newly formed oscillating Higgs vacuum until the Higgs vacuum pressure stops the evaporation and leave Galaxy Forming BHs (13) behind. However single BH will pair (16) with the nearest other BHs to form Dumbbell systems, which efficiently form Giant Stars and Galaxies (17) in between. (author: Leo Vuyk)



- 1: Non rotating Black hole nucleus (in 2D cross section).
- 2: Reference axis for trajectories 4,5 and 6.
- 3: Other incoming photonic Higgs fronts (without depleted trajectories)
- 7: High photon energy collider global shell, with intense Quantum effects like pair production (e^-e^+). S : test masses.
- 9: Butterfly shaped Higgs photon Fermion pushing curves in 2D.
- 10 and 11: Fermion repulsion zone. Due to the propeller shape of the Fermions, they will experience a so called "Spin Flip" in this zone.



According to Quantum FFF Theory, "New Black Holes produce Proton-Electron plasma. By the strong Casimir vacuum push gravity on the BH, the "lighter" electrons will stay outside the "heavier" proton horizon (blue). As a consequence BHs have a strong electric potential, which is liberated by asymmetric processes in dual BH systems like Herbig Haro objects showing strong electro magnetic effects in open cluster star formation and Birkeland Alfvén circuits around the earth and even in the so called BICEP 2 results.

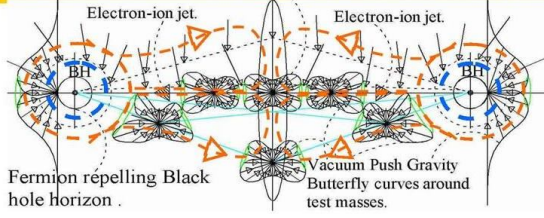
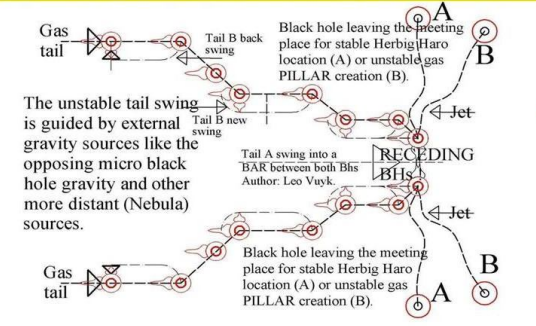


Figure 19,

M82 Starburst Galaxy (2x merging spirals) shows only medium Central located Black Holes [A] (No Giant BHs) and TWO double cone ordering of "Galaxy Anchor Black Holes" (GABHs) [B], according to Quantum FFF theory. (Chandra images)

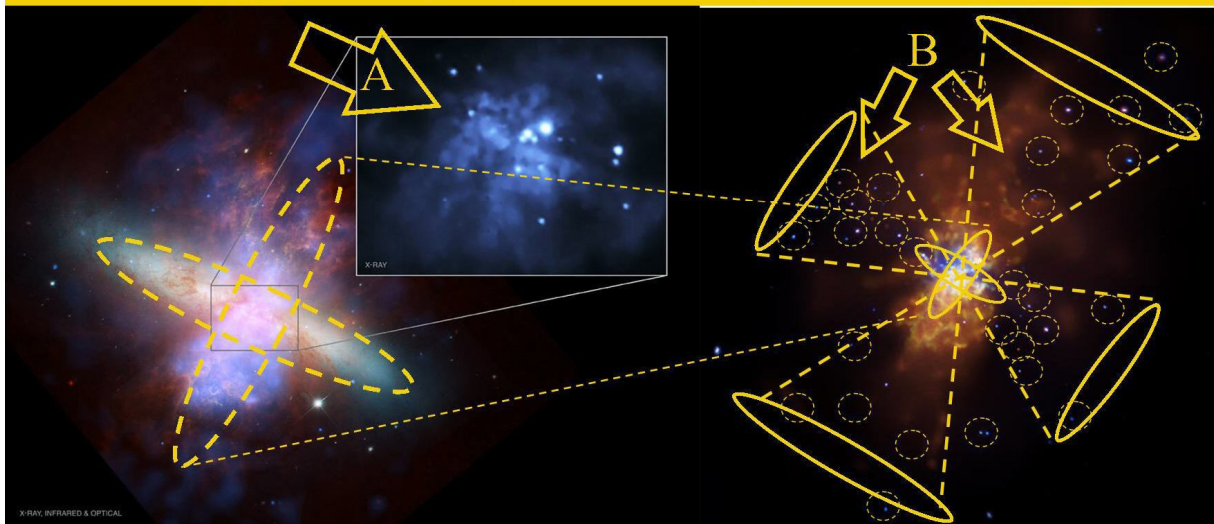
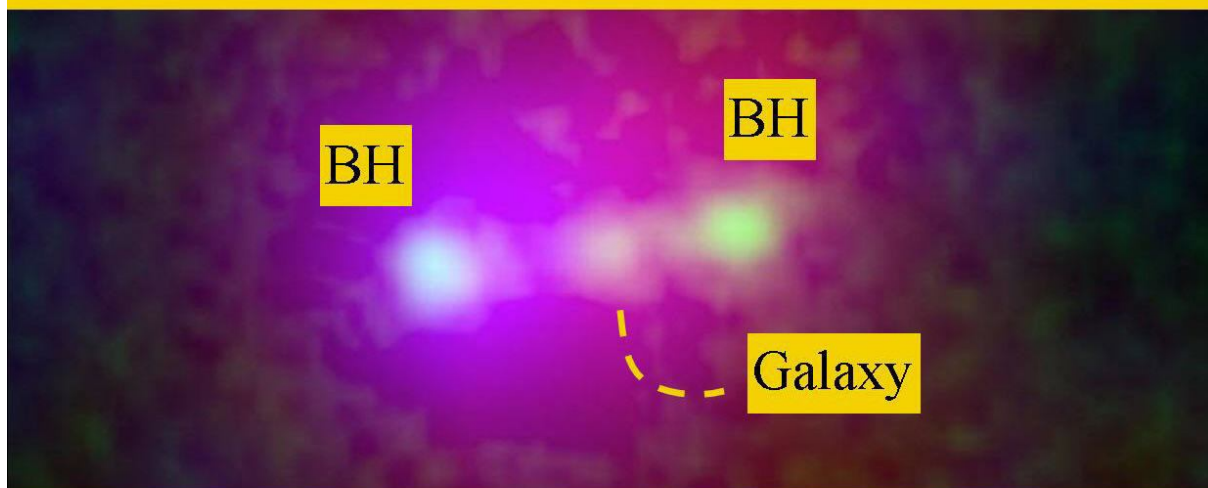


Figure 20,

Just after the big bang: a Giant dumbbell shaped system called Himiko.
What is it? One- or even Merging galaxies? (Alma-Hubble telescopes)
Quantum-FFF Theory says: TWO primordial pairing B.Bang black holes
with starforming galaxy in between. credit:NASA-NAOJ. November 2013.



Other examples of “early” galaxy formation with dumbbell dual black hole based shape: called Faint B3 Radio galaxies.

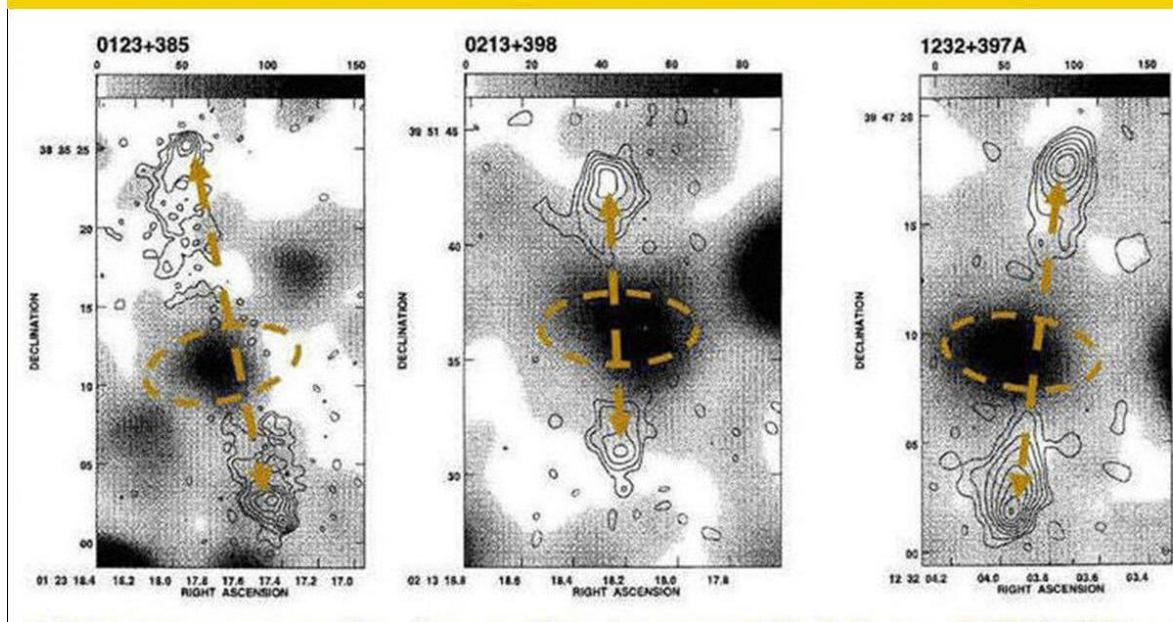
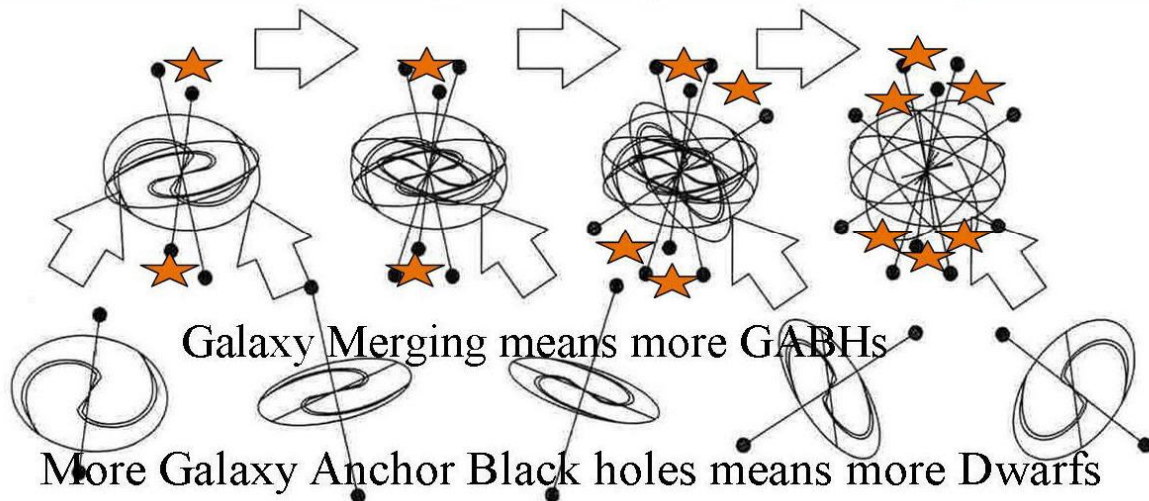


Figure 21,

Dwarf Galaxy formation between Galaxy Anchor Black Holes (GABHs) as the Origin of stellar migration forming Polar Ring Galaxies. More GABHs means more Dwarfs means more sources for Stellar migration and bulge formation, according to Quantum FFF Theory.



Comparison between Polar ring galaxies and Primordial early galaxy formation between two Galaxy Anchor Black Holes

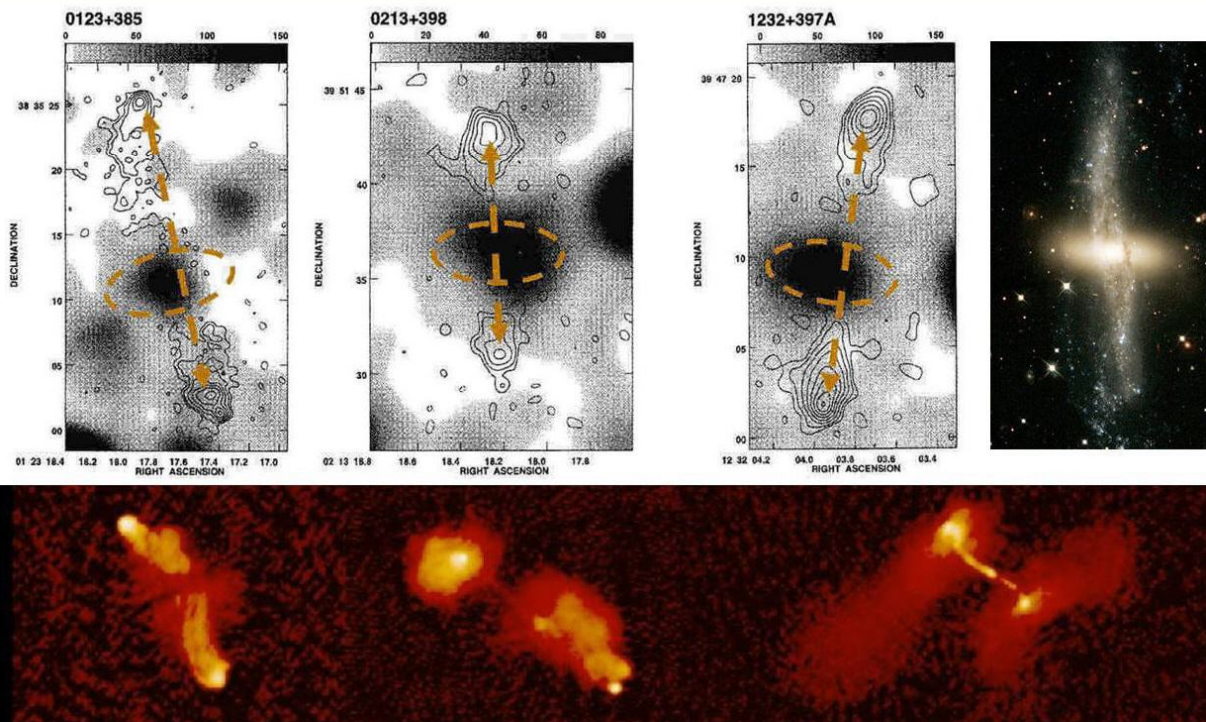


Figure 22, Dark Matter based GalaxyAnchor Black Holes (GABHs) are supposed to be the origin of dwarf galaxies, just as is observed in early galaxy systems.

Pairing Super Nova Black Holes around the center of Andromeda galaxy, with some triple point sources, as the start of new open star clusters, according to Quantum FFF theory

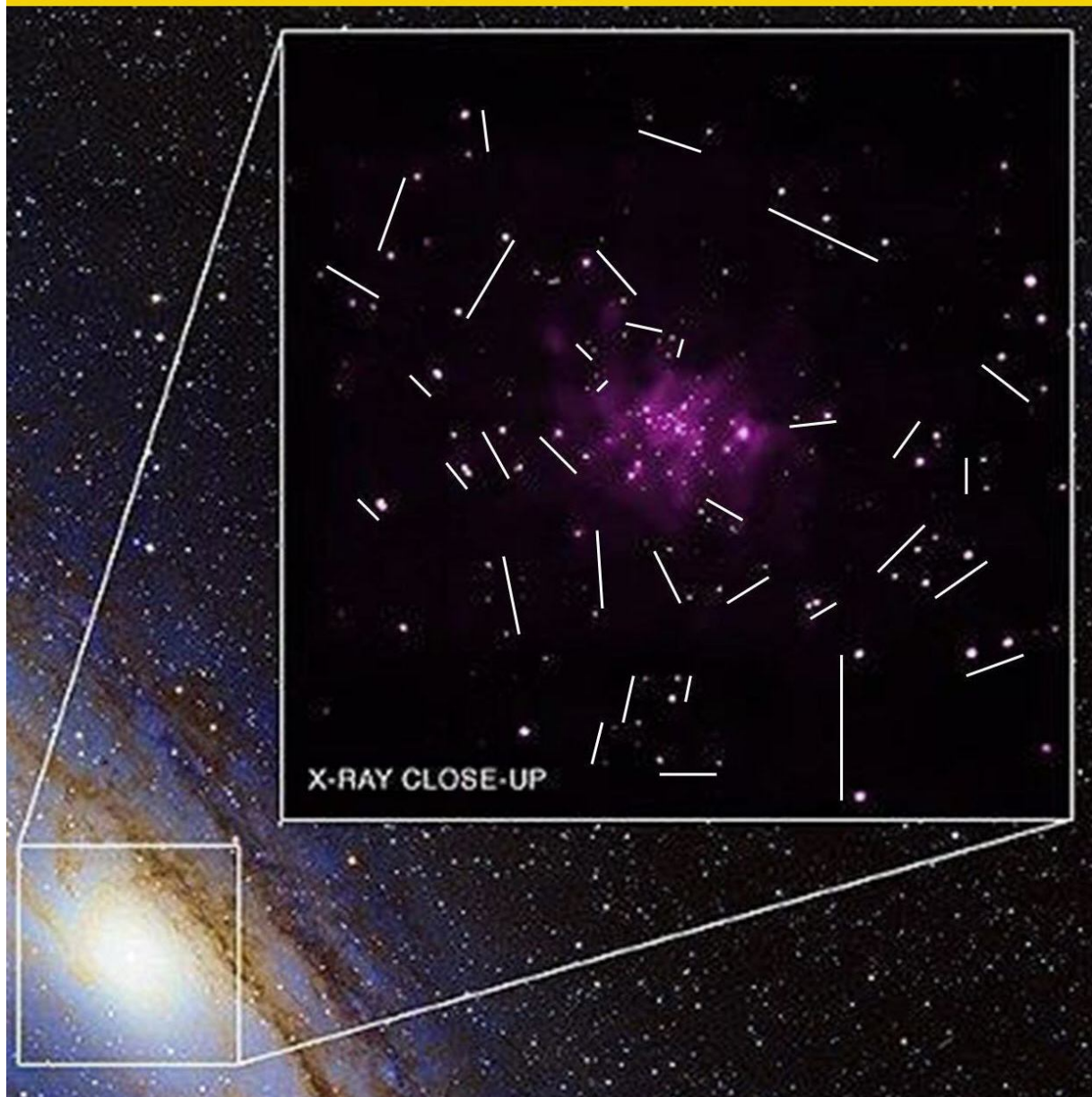


Figure 23, The x-ray close up clearly present here pairing dark matter secondary black holes created by supernova explosions. The paired BHs create new Herbig Haro objects with open star cluster formation in the centre. The result is that the Galaxy halo is extended with openstar clusters.



Figure 24, Dark Matter Black Hole point source distribution around giant galaxy clusters.

How Tendril galaxies could be formed by the extinction of evaporating Big Bang black Hole nuclei, inside voids of the Lyman Alpha forest, according to Quantum FFF Theory.

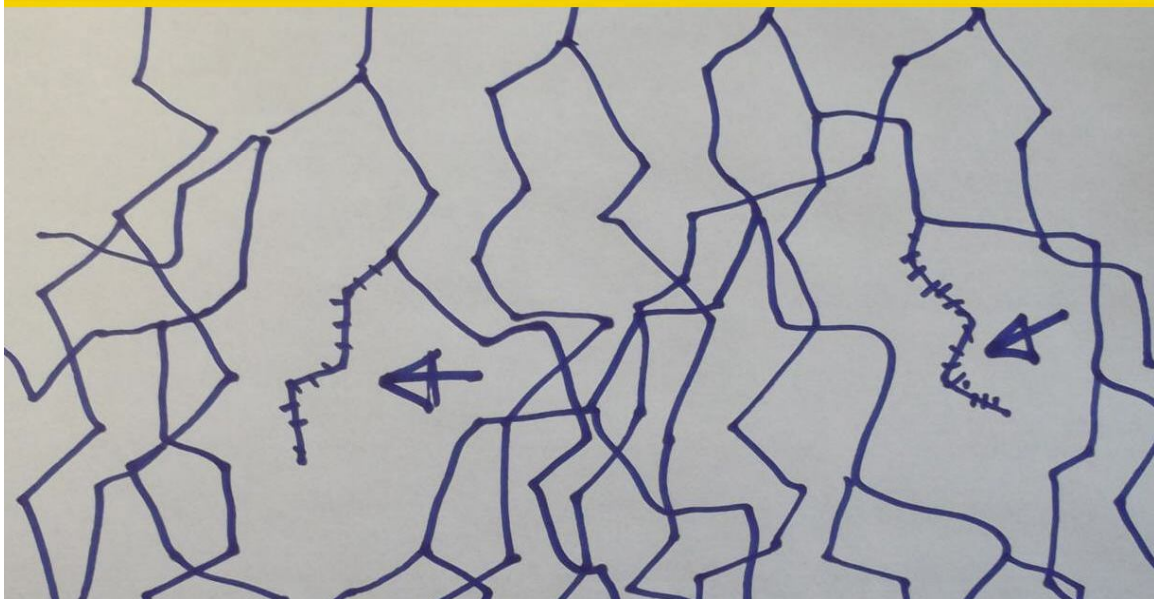


Figure 25, Tendril galaxies are supposed to be the origin of so called Red Nugget galaxies. Red Nuggets are compact old star-early galaxies recently observed in the early universe.

2x different Spacetime geometries, A: around massive objects like the earth, (a combined Higgs (3) -graviton (6) field topology), B: around a black hole (Without gravitons, only the Higgs field with Casimir topology).

Quantum Gravity as pressure distribution of the oscillating dual Higgs/Graviton vector field. New Dark Matter Black Hole, "Eat" the chiral oscillating Higgs vacuum.(Quantum-FFF Theory)

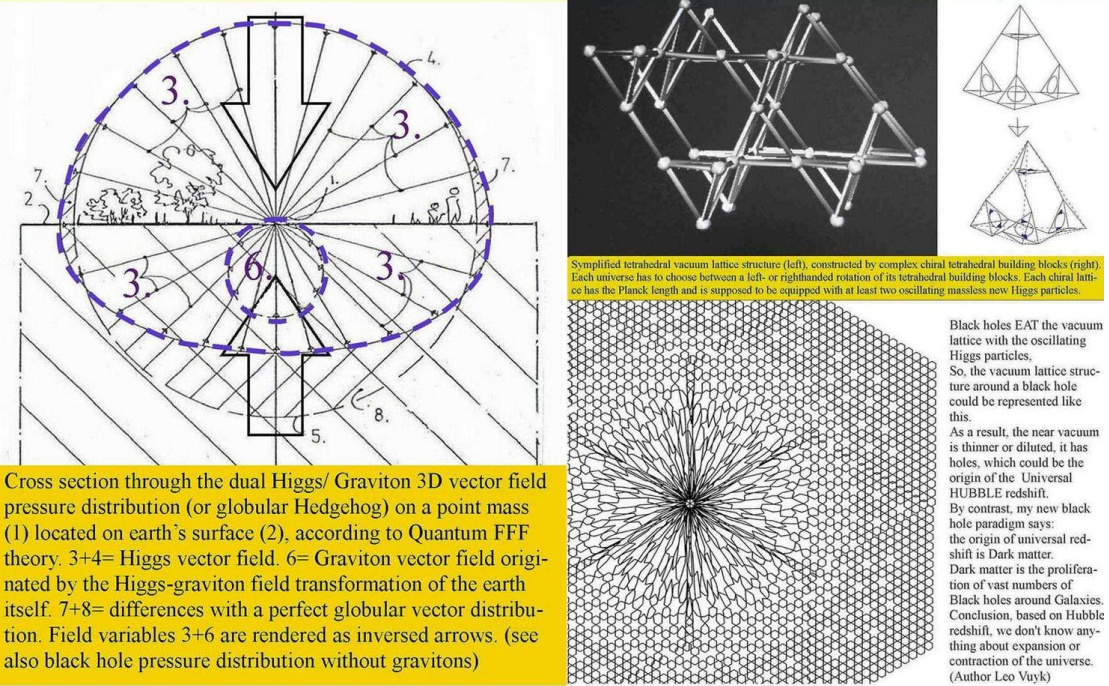
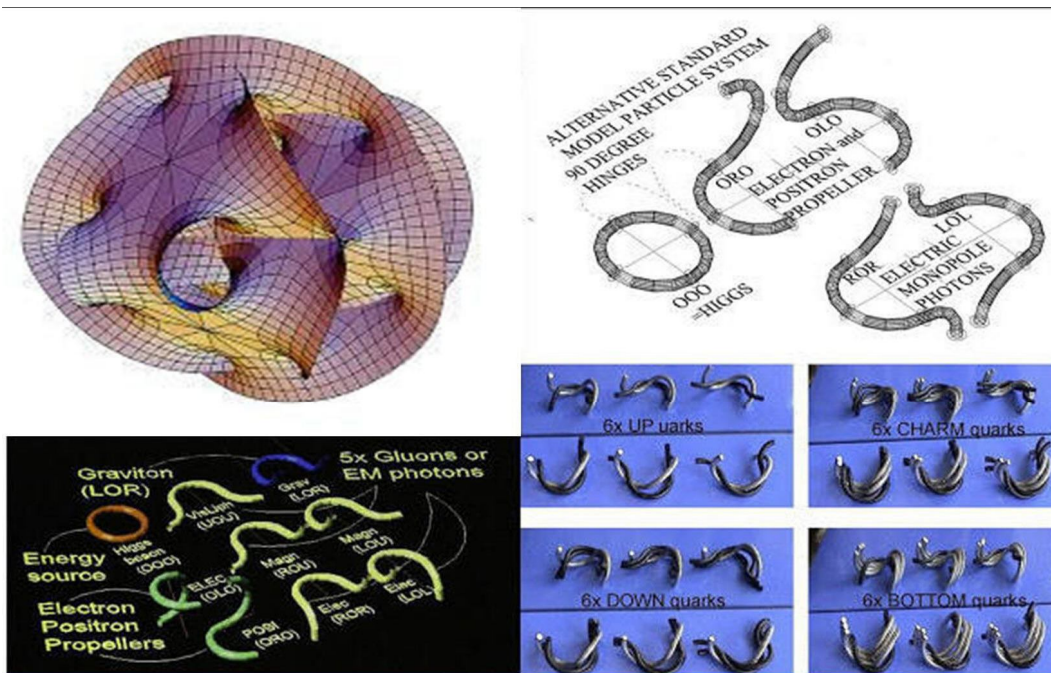


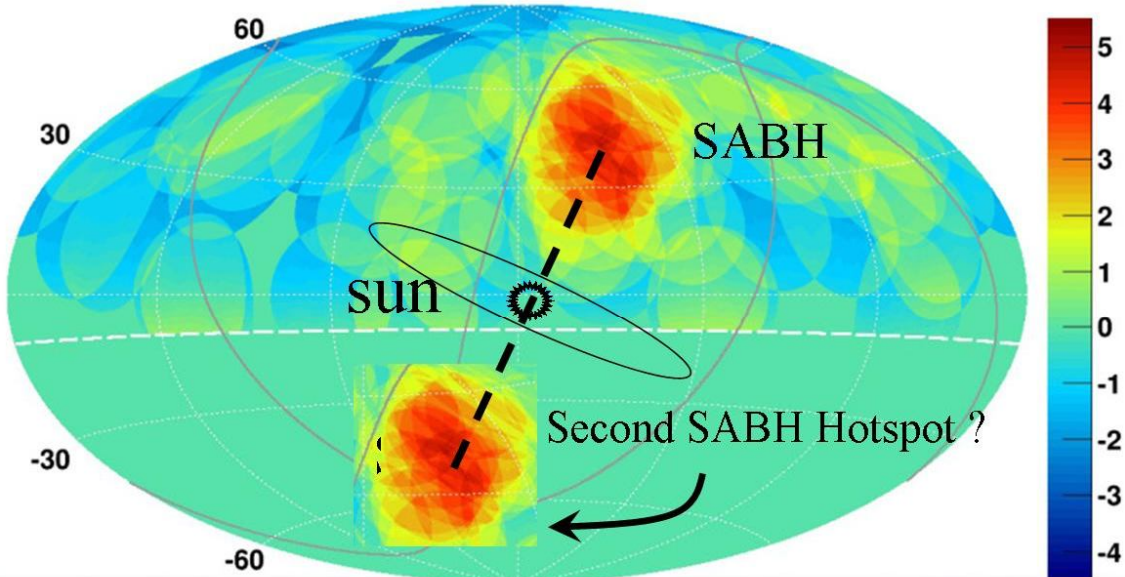
Figure 26,



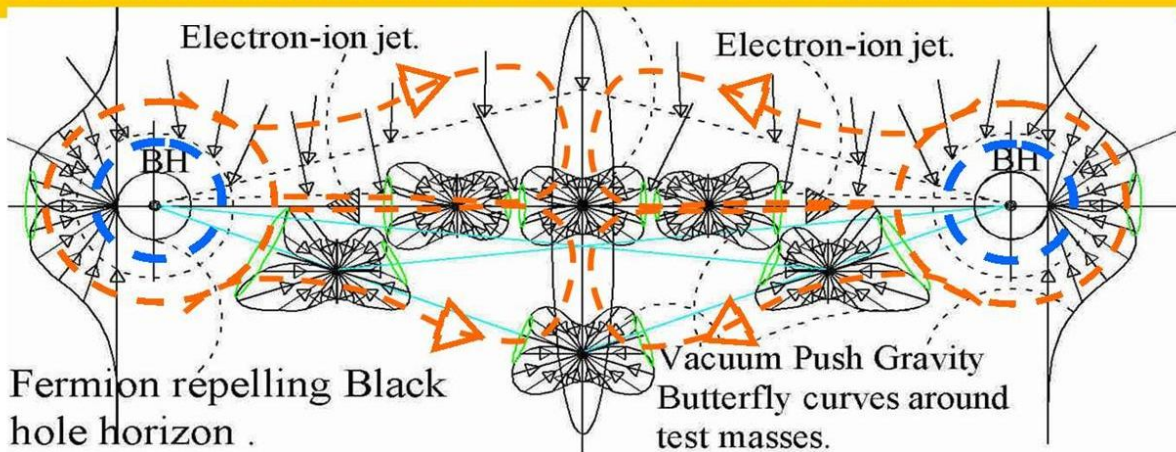
Calabi Yau structures by the dual axis spin of Fermions, according to Quantum FFF Theory.

Figure 27,

A hotspot for powerful cosmic rays found under the Big Dipper, by the University of Utah. The mysterious source of cosmic rays is also reason to look at the southern hemisphere to observe the opposing second Stellar Anchor Black Hole (SABH) (Cosmic ray production by NEW black hole paradigm according to Quantum-FFF Theory).



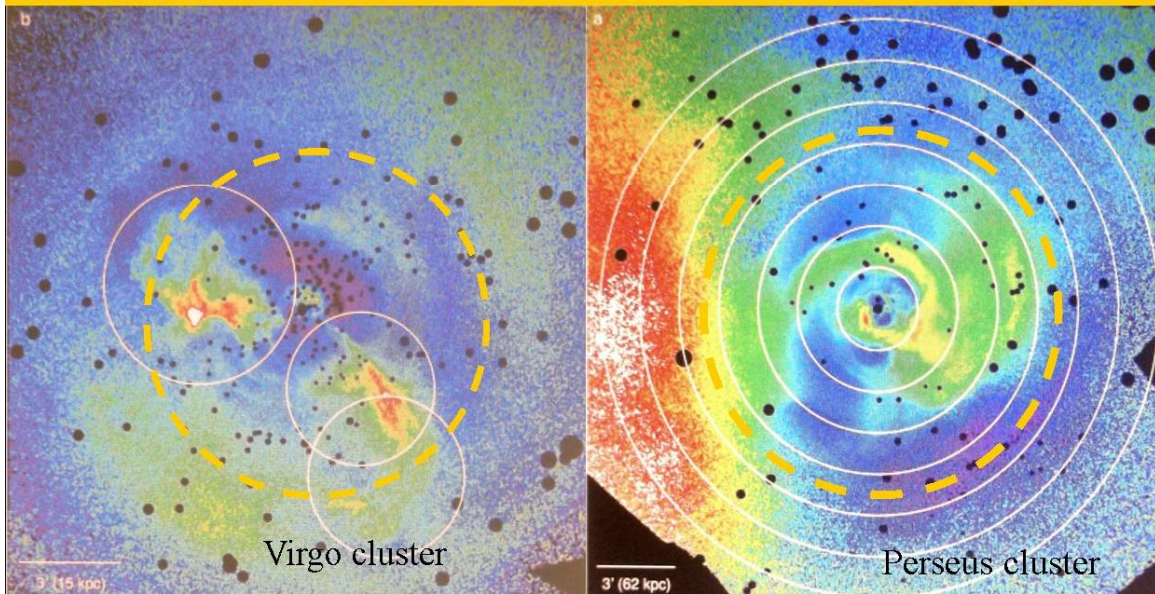
According to Quantum FFF Theory, “New Black Holes produce Proton– Electron plasma. By the strong Casimir vacuum push gravity on the BH, the “Lighter” electrons will stay outside the “heavier” proton horizon (blue). As a consequence BHs have a strong electric potential, which is liberated by asymmetric processes in dual BH systems like Herbig Haro objects showing strong electro magnetic effects in open cluster star formation and Birkeland Alfven circuits around the earth and even in the so called BICEP 2 results.



Scheme of the electric SABH principle around the sun.

Figure 30, Dual electric Dark matter black hole at polar locations of the sun.

X-ray point sources (Dark matter black holes) in Virgo and Perseus cluster centres present evidence for black hole hierarchy. According to Quantum FFF Theory (Function Follows Form), not the giants- but the smallest black holes reside in the centre of galaxies (see M104) and consequently in galaxy clusters. See also: <http://vixra.org/abs/1406.0076> Images: <http://arxiv.org/ftp/arxiv/papers/1410/1410.6485.pdf>



Below: Example of the galaxy black hole hierarchy model observed at Andromeda (M31 below left) and the Sombrero galaxy (M104 right).

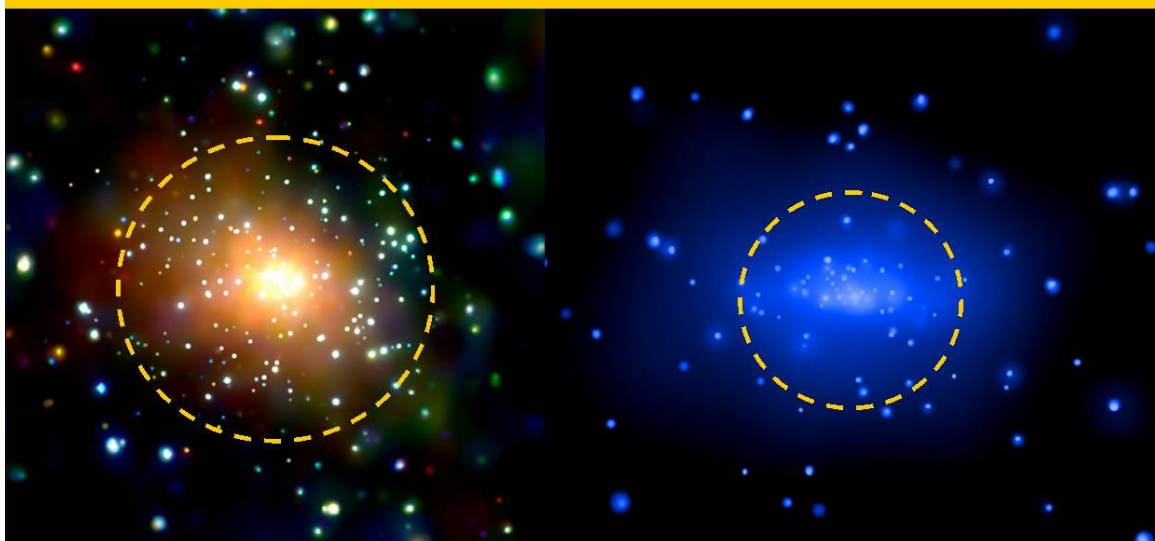


Figure 31. X-ray point sources (Dark matter black holes) in Virgo and Perseus cluster centres present evidence for black hole hierarchy. According to Quantum FFF Theory (Function Follows Form), not the giants- but the smallest black holes reside in the centre of galaxies (see M104) and consequently in galaxy clusters. See also: <http://vixra.org/abs/1406.0076> Images: <http://arxiv.org/ftp/arxiv/papers/1410/1410.6485.pdf>

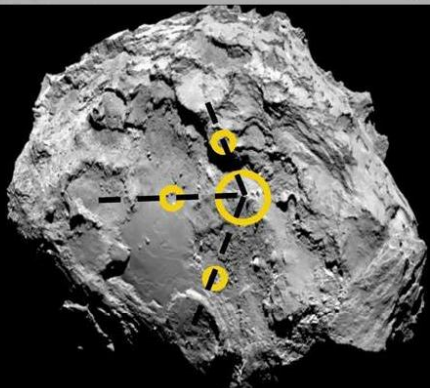
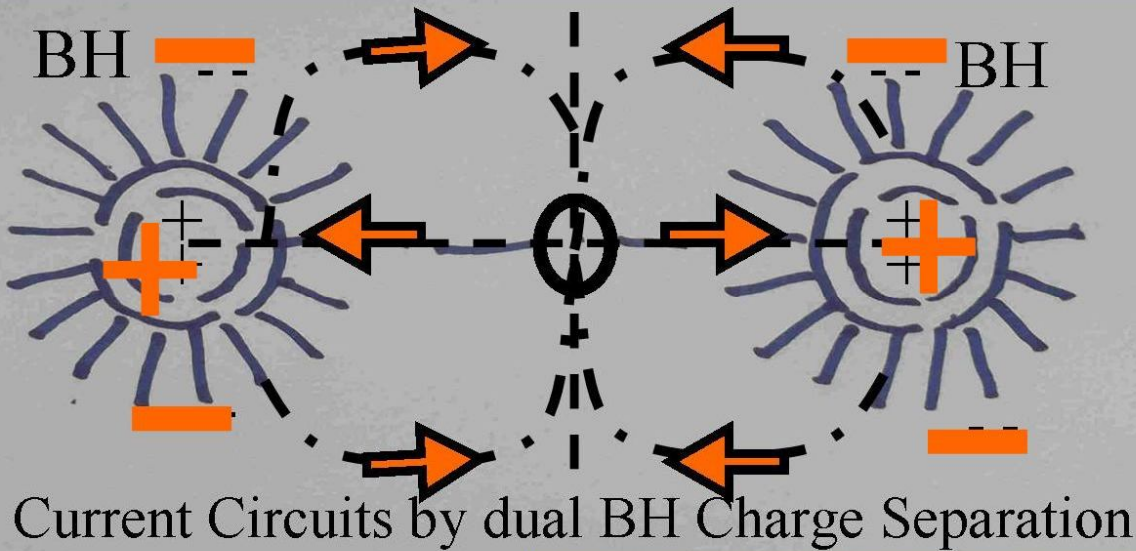
Quantum FFF Theory and New Physics by:

- 1: Dark Matter Black Holes without gravitons.
 - 2: Dark Energy (Casimir) Higgs Field.
 - 3: Dual push Gravity = Attraction (Higgs-Casimir opposing Graviton push).
 - 4: The Big Bang is a Splitting Big Bang Black Hole (BBBH) into smaller primordial Splinters.

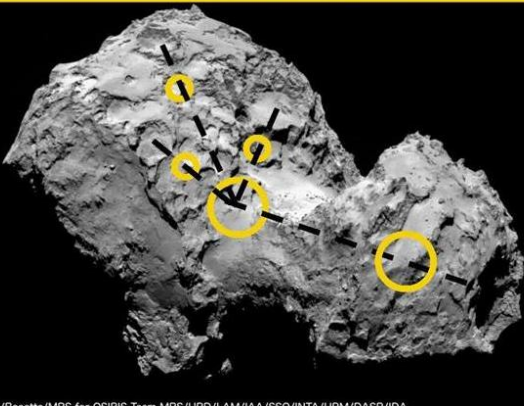
 - 5: Primordial Big Bang Black Hole splinters (PBBS) produce the energetic Dark Energy Higgs field by partly evaporation.
 - 6: Dual PBBSs produce plasma in giant Herbig Haro systems as a base for Giant stars in open clusters as a start for Spiral Galaxies.
 - 7: Spiral Galaxies keep both Primordial Black Holes as Galaxy Anchor Black Holes (GABHs) at long distance.
 - 8: After Galaxy Merging these GABHs are the origin of Galaxy- and Magnetic field complexity.
 - 9: Dual Black Hole systems produce Plasma out of the Higgs field by a convertible Higgs particle.
 - 10: Dwarf Galaxies are created after Galaxy merging in between two or more local GABHs (irregulars) or around GABHs Globular Clusters.
 - 11: The first Supernovas produce medium sized Black Hole as the base for secondary Herbig Haro systems.
- (author Leo Vuyk)

Figure 32, Quantum FFFtheory principles.

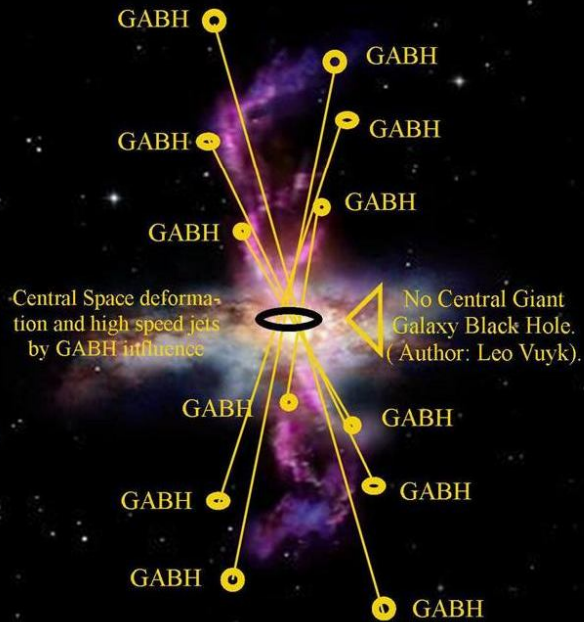
Comparison of Birkeland Alfvén current circuits inside Comets (67P by micro BHs) and Ultra Luminous IR Galaxies (by GABHs: Galaxy Anchor Black Holes) also found inside in Herbig Haro systems and Stellar systems, according to Quantum FFF Theory.
 See: <http://vixra.org/abs/1402.0044>



Comet 67P Craters originated by aligned gravity point sources according to Quantum FFF Theory.



Galaxy Anchor Black Hole (GABH)-
 Effect on High speed gas ejection.



Massive molecular outflows and negative feedback in ULIRGs observed by Herschel-PACS

Figure 33, Birkeland / Alfvén currents in galaxies and Comets.

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<http://www.lulu.com/spotlight/LeoVuyk>

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http://vixra.org/author/leo_vuyk

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[43] viXra:1401.0071
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[42] viXra:1312.0143
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[41] viXra:1312.0076
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The Semi Relativistic Higgs Field Aether with Mass Related Lightspeed Adaptation.
[38] viXra:1309.0081
New Physics by Table Top Experiments.
[37] viXra:1308.0083
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