

# **Proposal for the origin of unexpected large B-Modes found in the BICEP2 measurements.**

**Leo Vuyk,**  
Architect,  
Rotterdam, the Netherlands.

## **Abstract,**

According to Quantum FFF (Function Follows Form ) theory, our universe is part of a raspberry shaped Multiverse with super (Charge Parity) symmetric entangled universes down to each quantum. The raspberry multiverse is supposed to be a cyclic one, starting with an exploding central new physics Big Bang black hole and ending with a Big Crunch black hole.. The Big Bang Black hole can shortly be described as Higgs particle dark matter/ dark energy based nucleus of 8 or 12 CPT symmetric universal bubbles, evaporating and splitting by a Fractal inflation epoch leaving a so called Lyman Alpha forest of galaxy seeds behind.

Galaxy seeds are supposed to be represented by Quasars and large Quasar groups ( LQGs) but also by CMB (Cosmic Microwave Background) hotspots and B-Modes. The inflation epoch is supposed to end in the CMB if the black hole splitting and evaporation stops due to lack of black hole particle content, able to split and form local Quasars or LQGs.

It is generally accepted that the end of the inflation epoch can be observed in the Planck CMB ( Cosmic Microwave Background) and that gravitational waves are the origin of electric and magnetic structure called respectively E-modes and B-Modes.

However according to Quantum FFF theory the E and B-Modes could also be the result of so called Birkeland –Alfven current circuits produced between paring black holes as the origin of primordial Herbig Haro objects, which could be he origin of the unexpected large B-Modes found in the BICEP2 measurements. Not the gravity ripples but the Birkeland Alfven circuits are the direct origin of the unexpected large B-Modes. The fact that the B-Modes are unexpected large ( about 10-20 times larger than expected:  $r=0,2$  to  $0,01$ ) is reason to support this hypothesis, and support for future research on B-Modes.

## 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 splitting, accelerating and pairing MASSLESS dual Black Hole system seems to be able to convert vacuum energy (ZPE) efficiently into real electric energy and even H<sub>2</sub> production at the black hole horizon, by entropy decrease and is supposed to be responsible for all dark matter and Galaxy formation in the universe.

As a second consequence The Lyman Alpha structure of the universe is also supposed to be originated by this splitting and pairing process of Black holes, which should have been started at the beginning of the universe. Thus the big bang could have been a splitting and evaporation process of one or more central “new paradigm” black holes creating huge black holes based Quasars at the start of the Lyman alpha forest process..

Now I suggest that we can observe a strong signal of that event by the recent observation of TWO or even THREE Huge LQGs presented by R.Clowes. et al. as the NAVEL CORD start of the Raspberry shaped bouncing Multiverse out of which we are living in one of them.

New Physics is supposed to be obtained by the architecture of Quantum FFF (Function Follows Form) Theory.

Characteristics:

1: The clear MICROSTRUCTURE or the 3D FORM of elementary particles, (also called 3D-Preons) made out of convertible Higgs particles, is responsible for “Bound states of Fermions” and composite Quarks.

2: The Higgs is supposed to be energetic oscillating, it is the origin all particle motion and spin states and Dark energy (125 GeV) inside a truncated tetrahedron shaped chiral vacuum lattice. The lattice chirality (left or right handed) is the origin of our material universe. Higgs particles are zero point “Planck Oscillators” the origin of the Casimir force, waiting to be harnessed as free energy.

3: NOTHING SUCKS IN PHYSICS, Gravitons act with less pressure on Fermions than the Higgs vacuum (dark energy) and everything is ENTANGLED by INSTANT communication between at least two anti-copy UNIVERSES or MULTIVERSE, being entangled since the big bang.

4: Black holes of all sizes (down to ball lightning) do not emit gravitons, they feel only Casimir Gravity of the vacuum oscillations so they are massless but counter intuitively the origin of dark matter and producers of all Hydrogen by electron and Positron pairs as horizon fluctuations and repel all Fermions at the BH horizon.

5: The Multiverse is Pulsating by two phenomena, A; vacuum (Higgs) eating new paradigm dark matter black holes (causing the Hubble redshift) and B: by universal expansion caused by the oscillation force (Dark energy) of the Higgs vacuum lattice.

FUNCTION FOLLOWS FORM in Quantum FFF-Theory. The Microstructure of elementary particles, is supposed to be the origin of FUNCTIONAL differences between Higgs- Photon- and propeller shaped Fermion particles.

Something SMALL is missing in mainstream physics: a NEW splitting and pairing MASSLESS BLACK HOLE, the origin of all dark matter, Ball Lightning Micro Comets , Comets, Sunspots up to Galaxy external Anchor Black Holes and the Big Crunch of the CP symmetric pulsating raspberry shaped multiverse.

The multiverse is a huge pinball machine, with dark energy in the form of linear oscillating double Higgs pins as the origin of photonic collision products with the propeller shaped Fermions as balls. All forces are the result of this entangled Pin-Ball interaction.

The 125GeV Boson recently found in the LHC is not a single but a double massless 3rd generation Higgs boson linear oscillating in tandem as opposing boxer engine pistons in a chiral truncated tetrahedron lattice.

The 125GeV energy is the base for universal dark energy, the frequency is the base for local time and the length a base for the Planck scale. (Twin Higgs, Dual Higgs, Duplex Higgs, or Tandem Higgs)

AS A RESULT,. An unstable Higgs vacuum seems to be present around all black hole horizons due to observed H<sub>2</sub> production and annihilation radiation created by pair production of positrons and electrons. (Instability of the Higgs field) (Ref. 25)

The Lyman alpha Structure of the universe seems to be the result of the H<sub>2</sub> production and black hole splitting process, which seems to be supported by the recently observed HUGE Quasar Groups found by R.Clowes, et al. (Ref: 29)

Consequently this is a new support for an alternative Big Bang black hole splitting process.

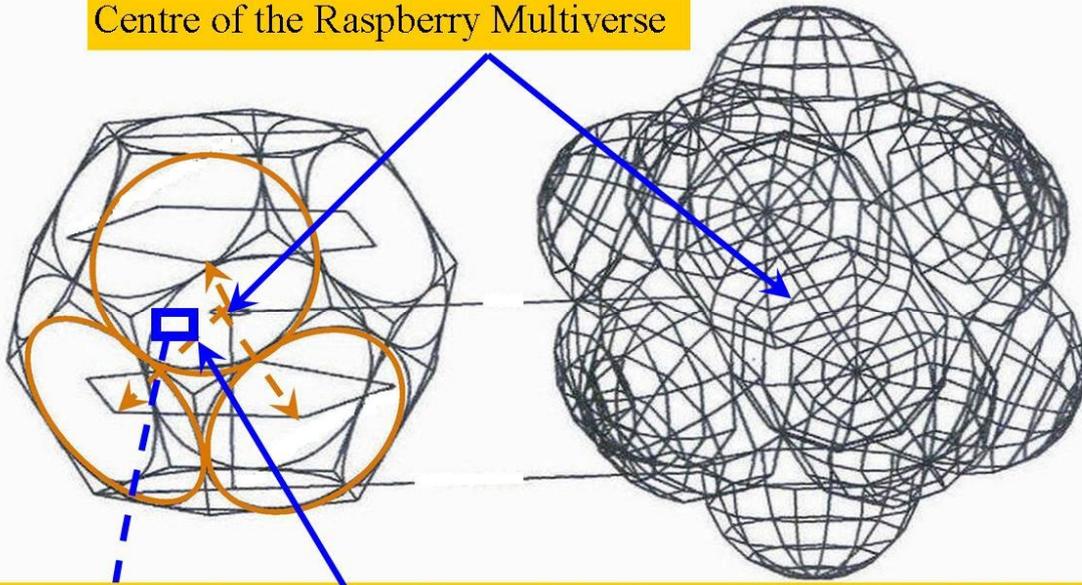
The inflation epoch is supposed to end if the black hole splitting and evaporation stops due to lack of black hole nuclei Higgs content able to split.

It is generally accepted that the end of the inflation epoch can be observed in the Planck CMB ( Cosmic Microwave Background) and that gravitational waves are the origin of electric and magnetic structure called respectively E-modes and B-Modes.

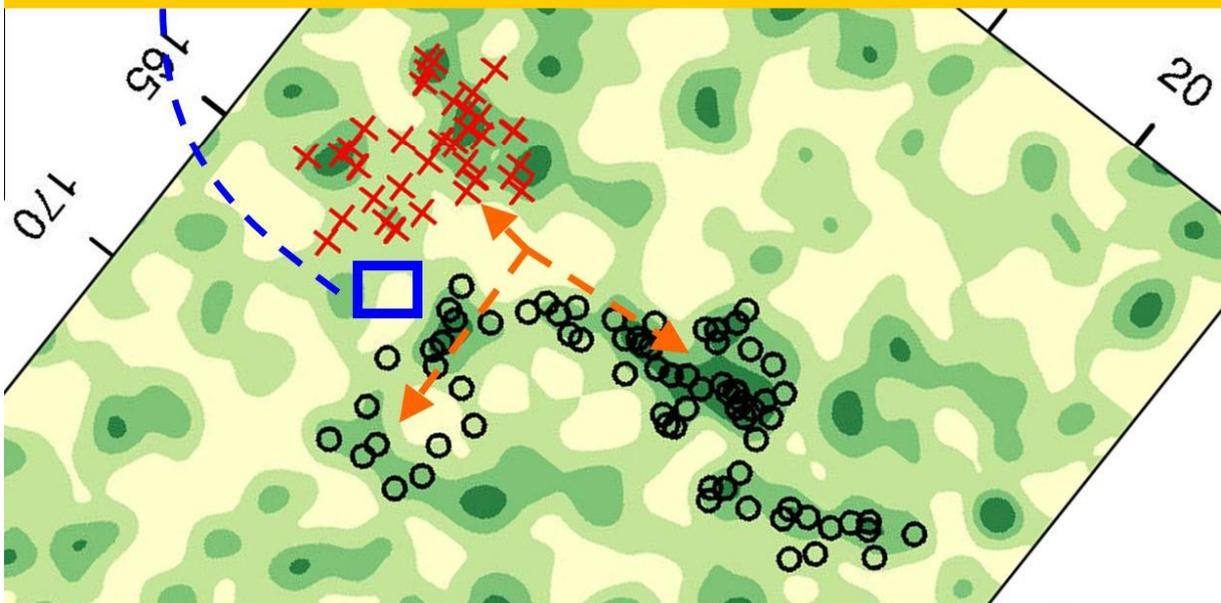
However according to Quantum FFF theory the E and B-Modes are the result of so called Birkeland –Alfven current circuits produced between paring black holes as the origin of primordial dual hotspots of the Herbig Haro objects, (see former essays) which is also proposed to be the origin of the unexpected large B-Modes found in the BICEP2 measurements. Not the gravity ripples but the Birkeland Alfven circuits could be the direct origin of the unexpected large B-Modes. ( figure 19, 20, 21)

THREE LQG's (Large Quasar Groups, suggested by R.Clowes et. al) seem to be related to the Big Bang- Black Hole evaporation process of the Raspberry shaped Multiverse (12x anti-copy universes) according to Quantum FFF (Function Follows Form) Theory. (author L.Vuyk)

Centre of the Raspberry Multiverse



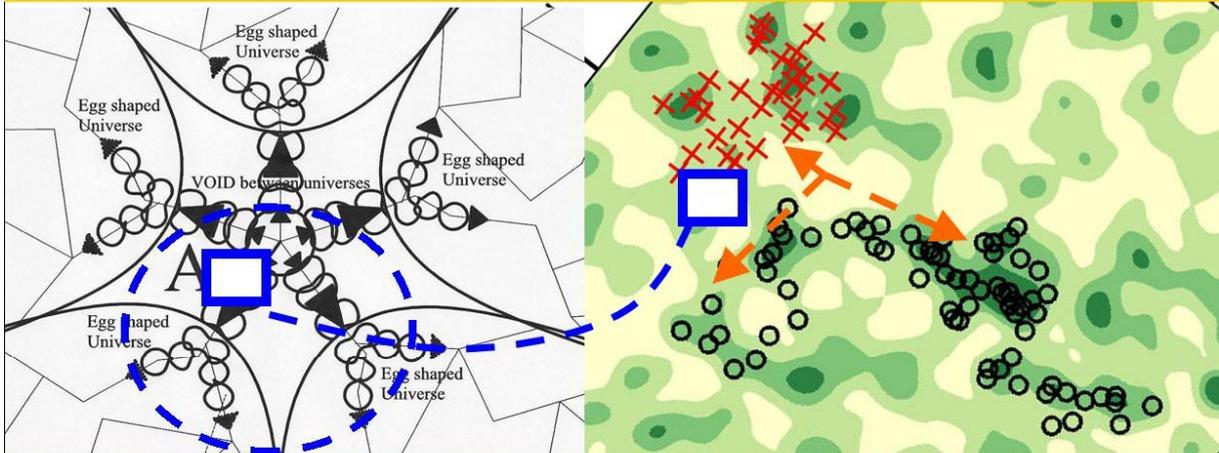
Position of The Earth (our telescope) looking at THREE LARGE QUASAR GROUPS being the start of three (out of 12x) universes at the centre of the Multiverse. The other 9x universal LQG's are out of site!



Professor R. Clowes et al. suggested already (but also rejected) that the Huge LQG group (black circles) could be a dual group based on the sharp curvature in the middle.

Figure 1, Three large Quasar Groups as the hart or Navel Cord of the Splitting Black Hole Big Bang?

The start of the alternative Big Bang or Black Hole splitting and evaporation process, the creation of the Raspberry shaped Multiverse (12x anti-copy big-bang entangled universes) according to Quantum FFF (Function Follows Form) Theory.



The Big Bang Black Hole splitting and evaporation process (or branched inflation) is supposed to create the ‘bushy’ Lyman alpha galaxy and gas distribution of the universe leading to so called “fingers and voids”

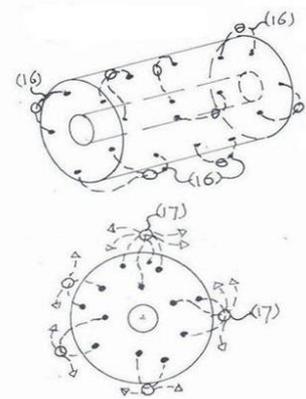
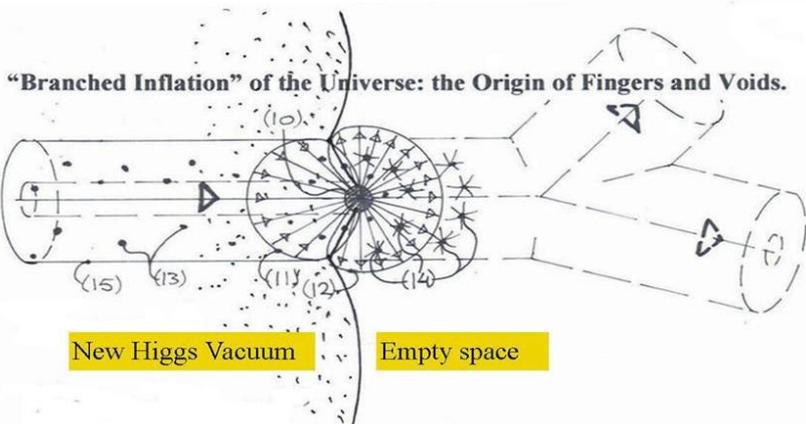
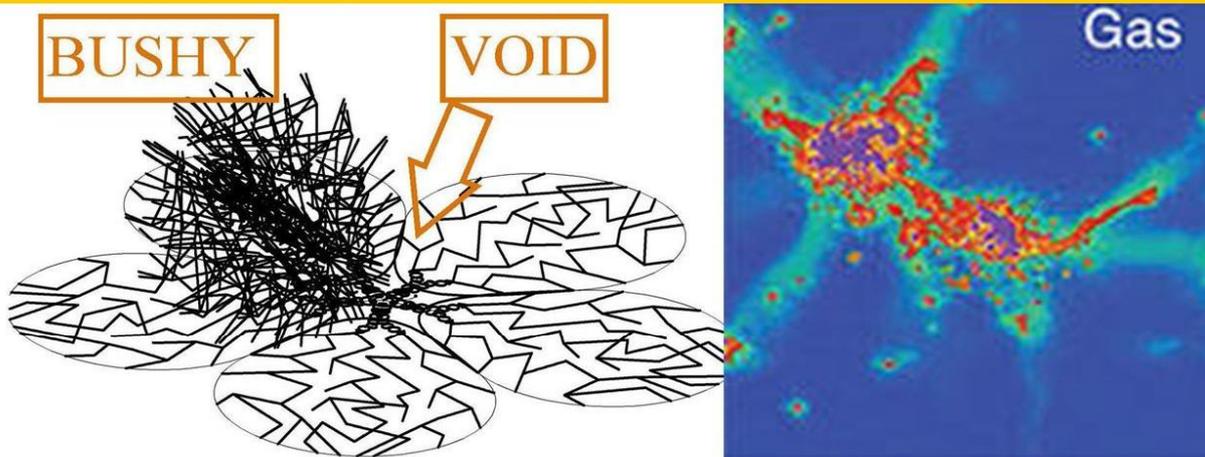
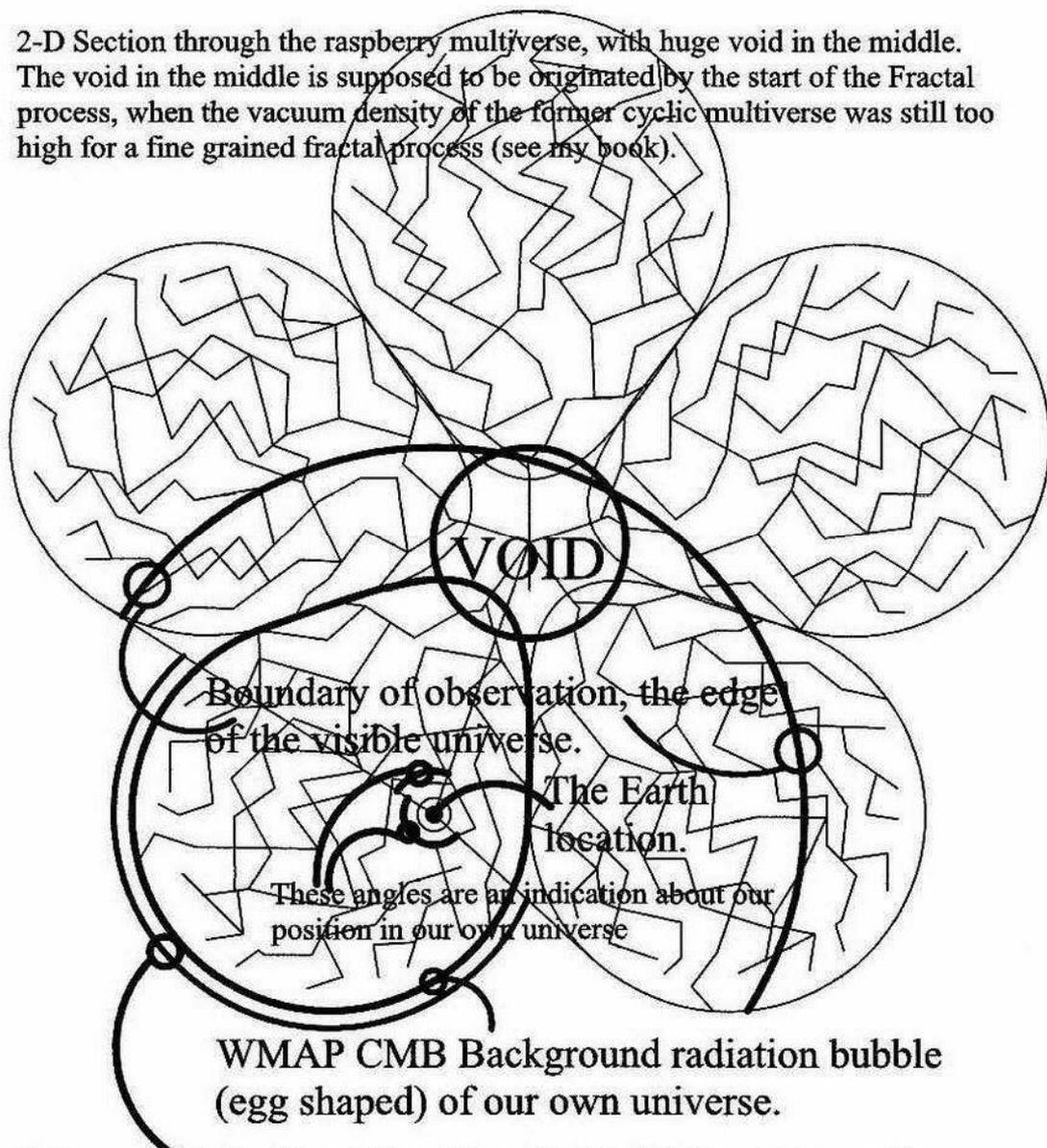


Figure 2, Splitting and Pairing Black holes in the Quasar- Galaxy seed creation process and the BH evaporation of the oscillating Higgs vacuum itself..

The CPT symmetric raspberry universe seems to be the result of Fractal shaped evaporation, of the content of a cyclic central big crunch black hole, into egg shaped bubbles with individual Cosmic Microwave Background. (CPT= Charge Parity and Time)

3-D suggestion for the solution of the so called "MISSING GALAXY SHADOWS". All the Galaxy (clusters) located behind the WMAP CMB boundary (outside our own universe) do not create some kind of SHADOW on the 2.7 Kelvin cosmic background radiation.

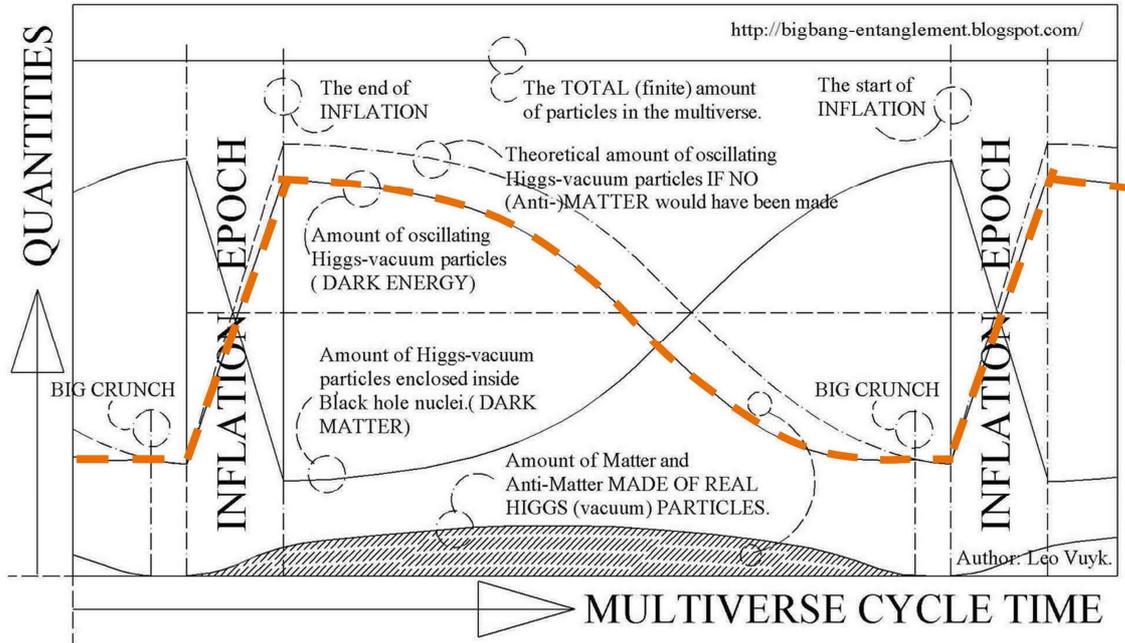
2-D Section through the raspberry multiverse, with huge void in the middle. The void in the middle is supposed to be originated by the start of the Fractal process, when the vacuum density of the former cyclic multiverse was still too high for a fine grained fractal process (see my book).



Future research should provide evidence for the globular anti-symmetric distribution of galaxy clusters without a CMB shadow. In the external half of the globular hemisphere all galaxy clusters will show up with a clear shadow in the CMB, because there are no galaxies located behind this part of the CMB. The angle which will be measured between these two hemispheres will be an indication for our observer location in our own Universe. (author: Leo Vuyk)

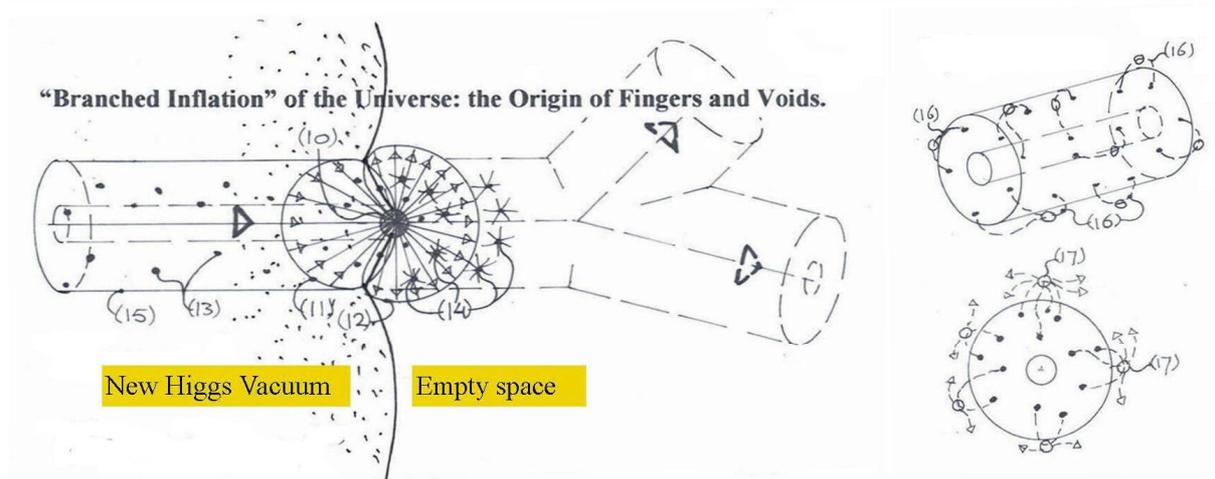
Figure 3, The Raspberry Multiverse (12x)

The Inflation epoch starts if the decreasing vacuum pressure equals the increasing Higgs tension of the Big Crunch black hole nucleus. Inflation epoch ends if all splintered black hole nuclei are evaporated, or left behind as Galaxy Anchor Black Holes.



The Pulsating Multiverse depicted as a continuous flow of increasing and decreasing numbers free oscillating- and Black hole condensed Higgs particles and the amount of Quarks and leptons. The size of the pulsating multiverse vacuum is given in orange.

Figure 4, The CPT symmetric Multiverse cycle.



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)

Figure 5, Branched inflation : explanation of the numbers

# Electric Current processing between dual Dark Matter Black Hole systems around the Sun and Spiral Galaxies, according to Quantum FFF Theoery

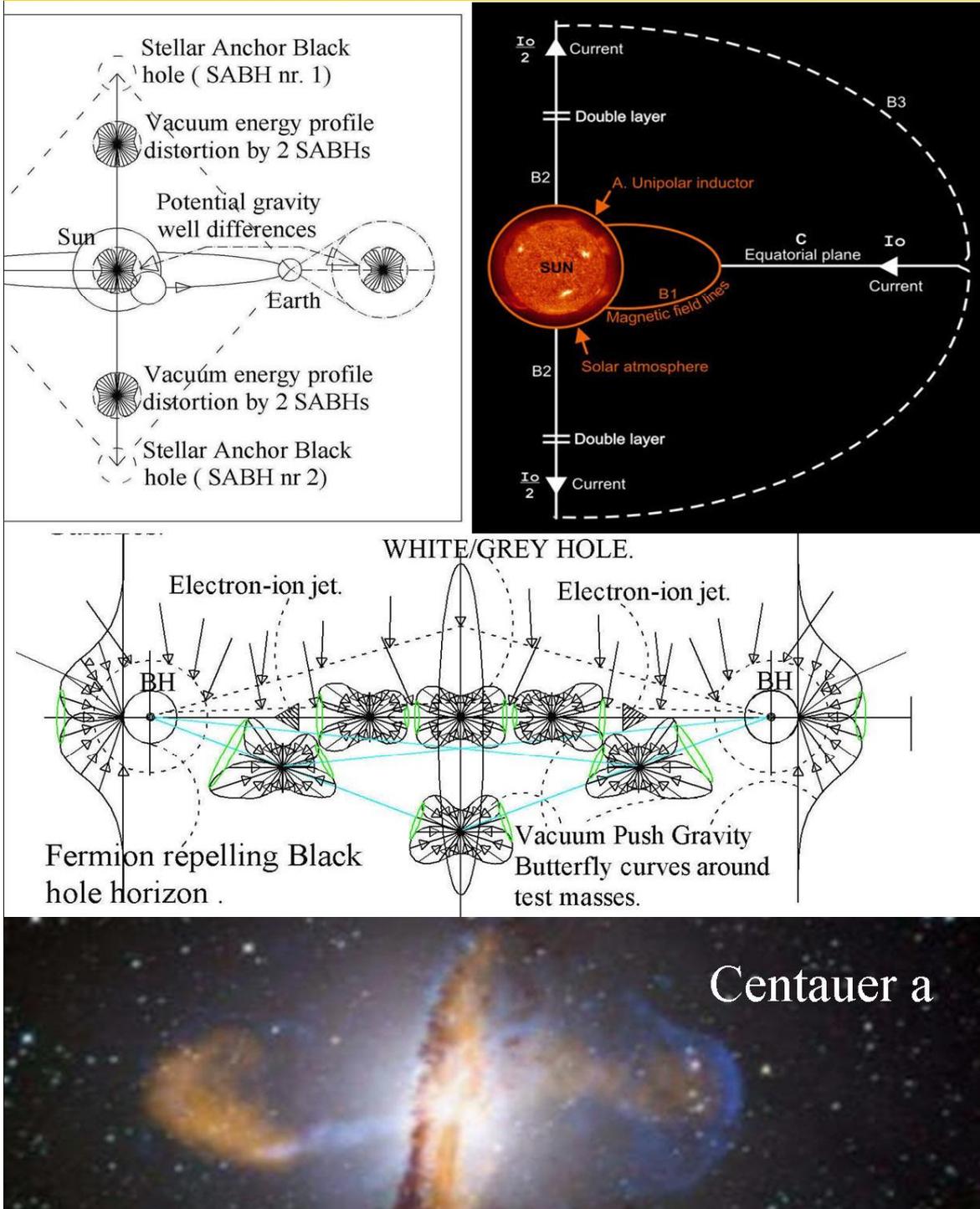
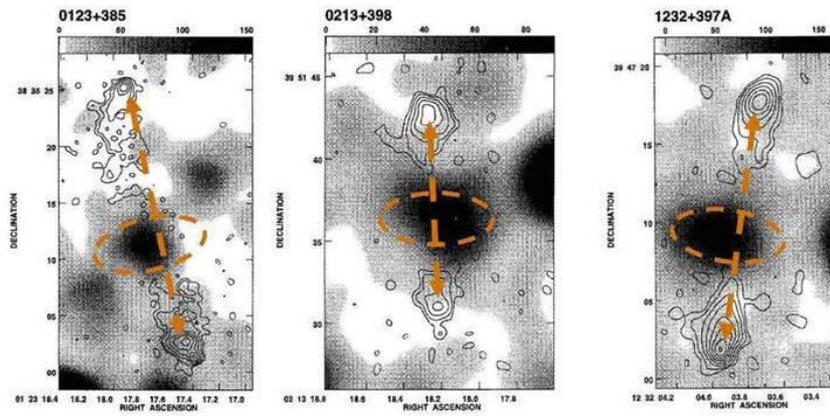
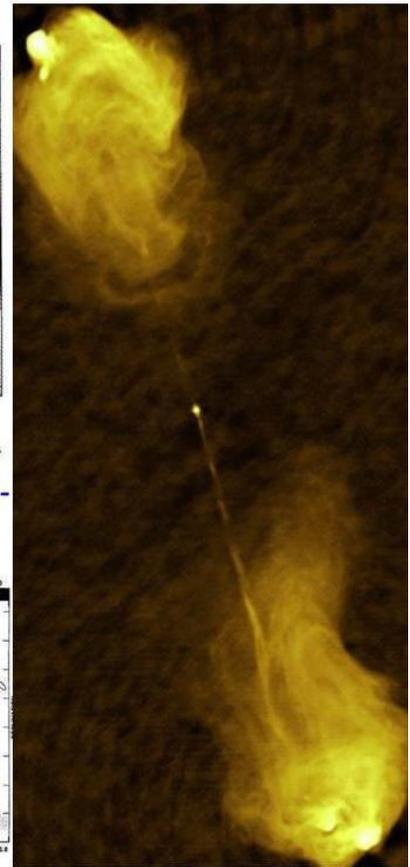
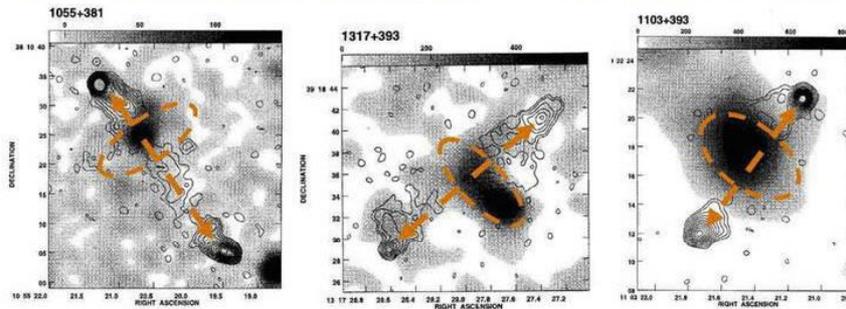


Figure 6. Oscillating Higgs vacuum polarisation with the resulting gas acceleration between black holes of difference sizes like Stellar Anchor Black Holes and Galaxy Anchor Black Holes.



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.



TWO pairing and receding micro black holes, propelled by unstable ionised gas tails, as observed in many Nebula: Carina, Eagle, Crab etc. creating HH objects or Gas Pillars.

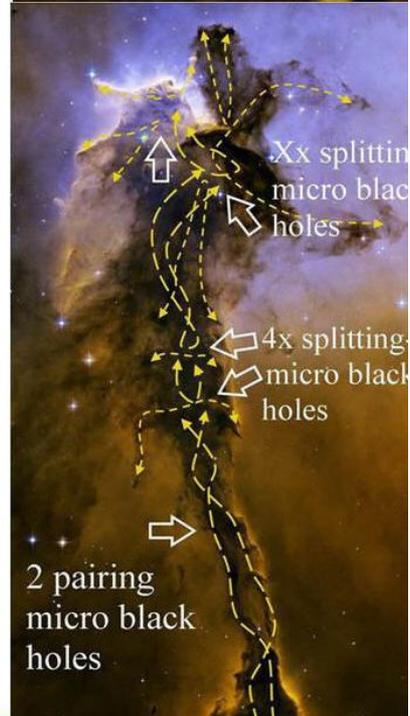
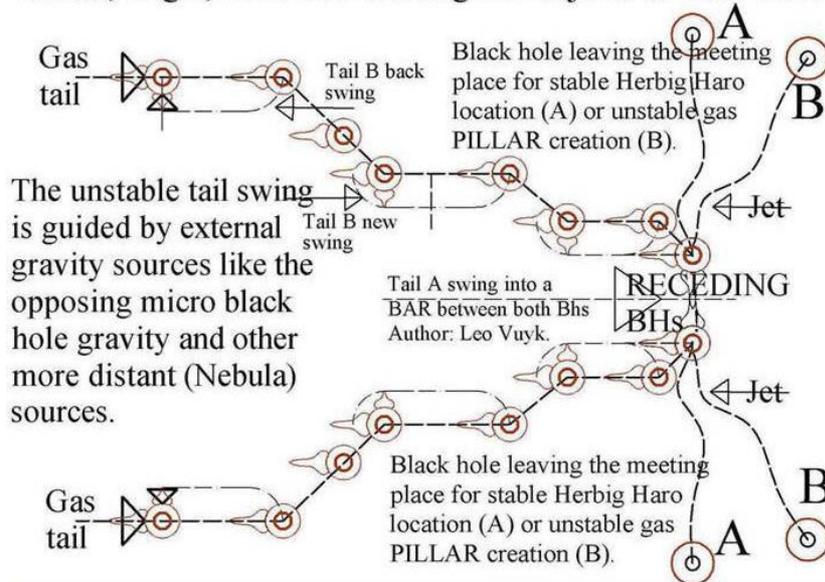
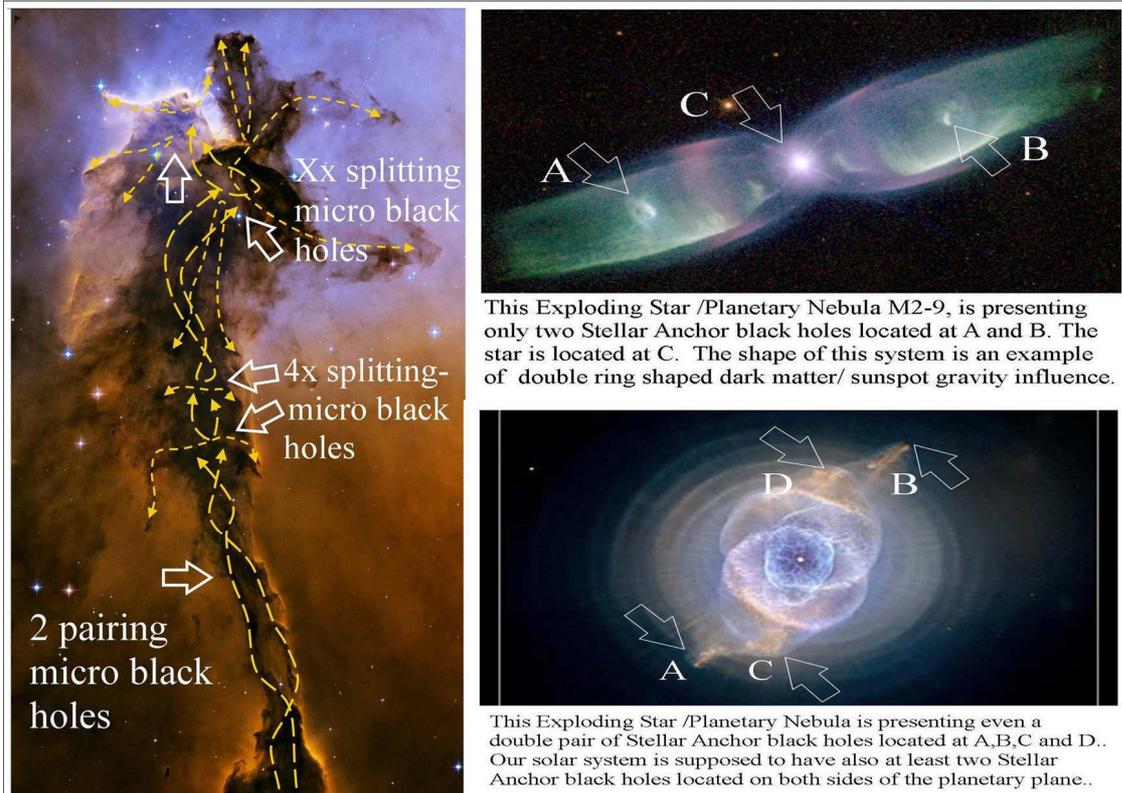
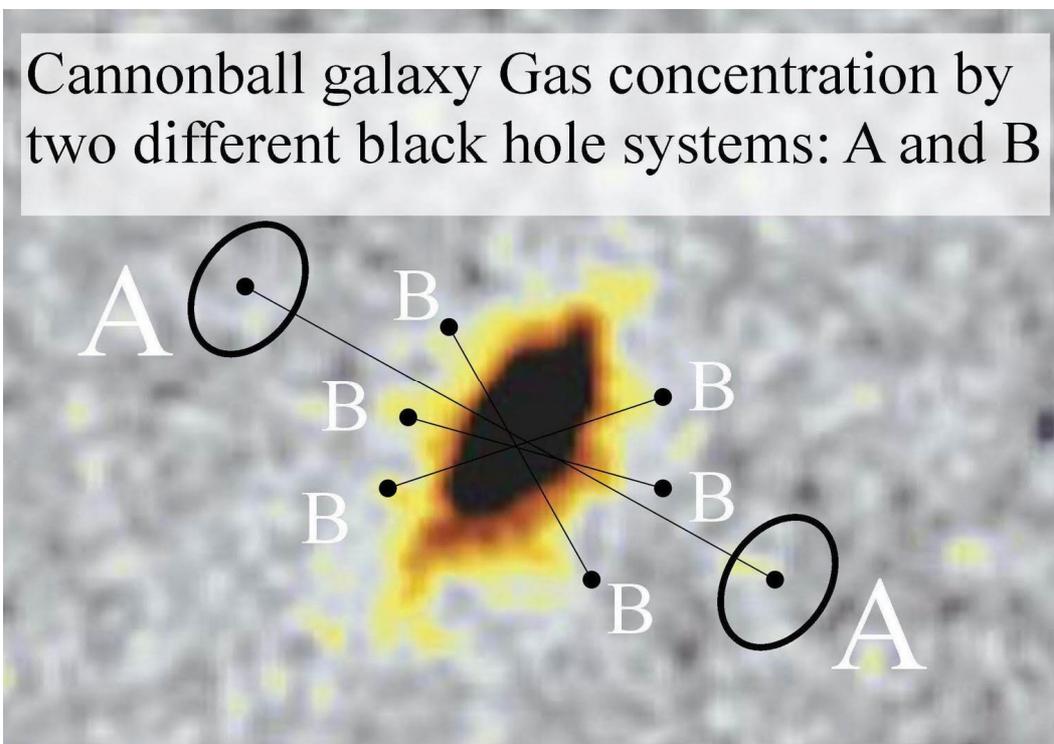


Figure 7. Pairing and Splitting Black Holes in Early galaxies Cygnus A and inside Nebula.



**Figure 8. Pairing and Herbig Haro producing black holes inside Nebula and observed as hotspots around exploding stars.**



**Figure 9. Early Cannonball Galaxy with additional Galaxy Anchor Black Hole system according to Quantum FFF Theory.**

BH system A= primordial Giant Black Holes left over from the Big Bang BH splitting process. BH system B= is created by the first supernova explosion Black Holes.

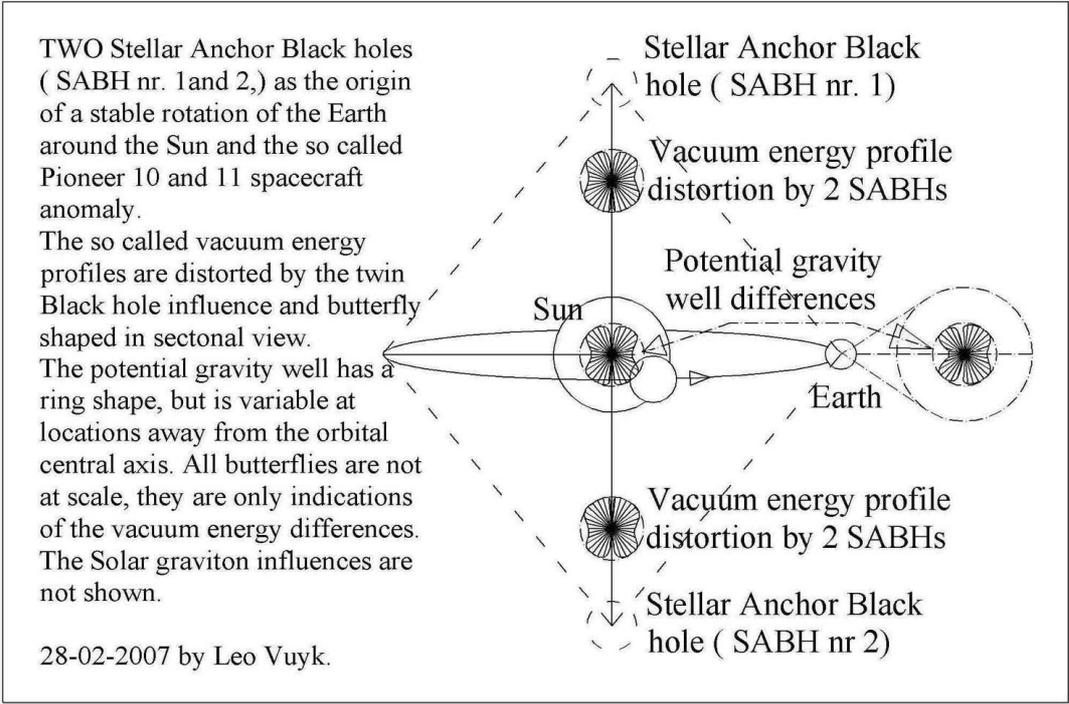
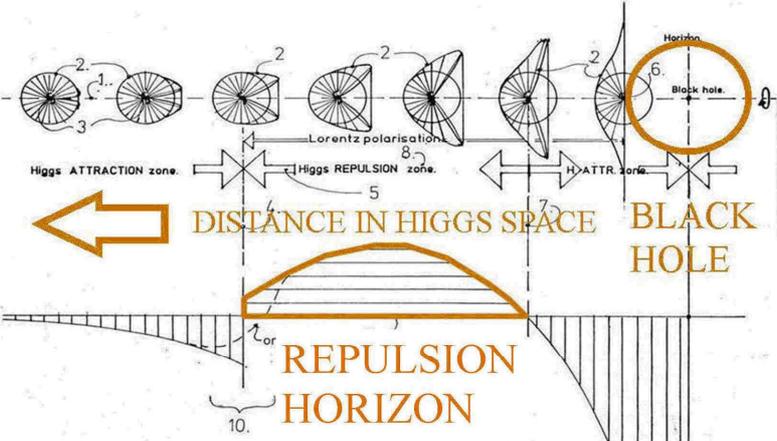


Figure 10. Stellar Anchor Black Holes (SABHs) and the Sun.

### The Fermion repelling horizon of new black holes



7x Higgs quantum curves (2) are depicted for Fermions (3) with different distance to the BH. At location (10) the spin of the fermions will FLIP due to the propeller shape of the Fermion and an opposing force away from the horizon is created by the Higgs vacuum itself down to location (7). The zone between (7) and (10) ...

Figure 11. Fermion repelling horizon of new paradigm black holes.

Examples of "new" black holes, accelerated by self produced H<sub>2</sub> 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.

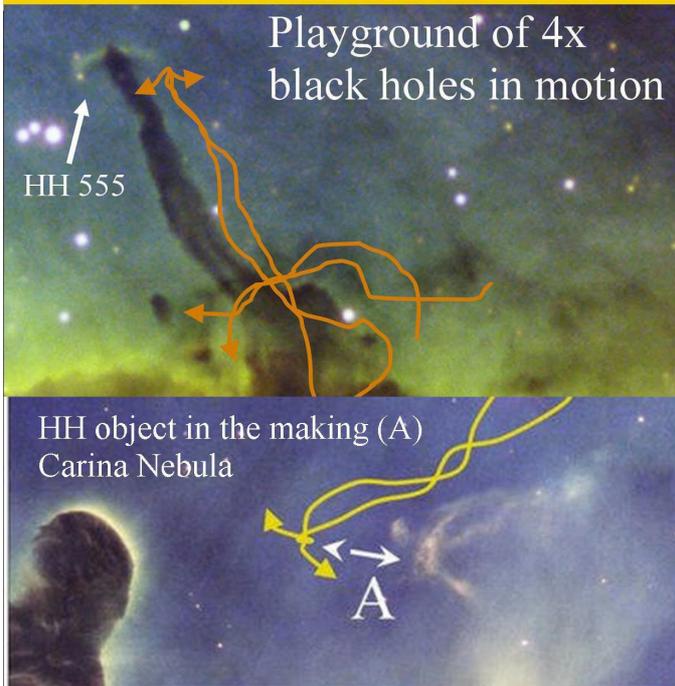


Figure 12. Examples of pairing and receding new micro black holes inside. Splitting to create Herbig Haro Objects with star formation in between.

Comparison of the Final ESA CMB Planck map with a cross section through the Raspberry Multiverse according to Quantum Function Follows Form theory. Compare the Cold Spot with the Void and the Warmer and Colder Hemisphere of the Plack CMB (left) with observation boundaries (right)

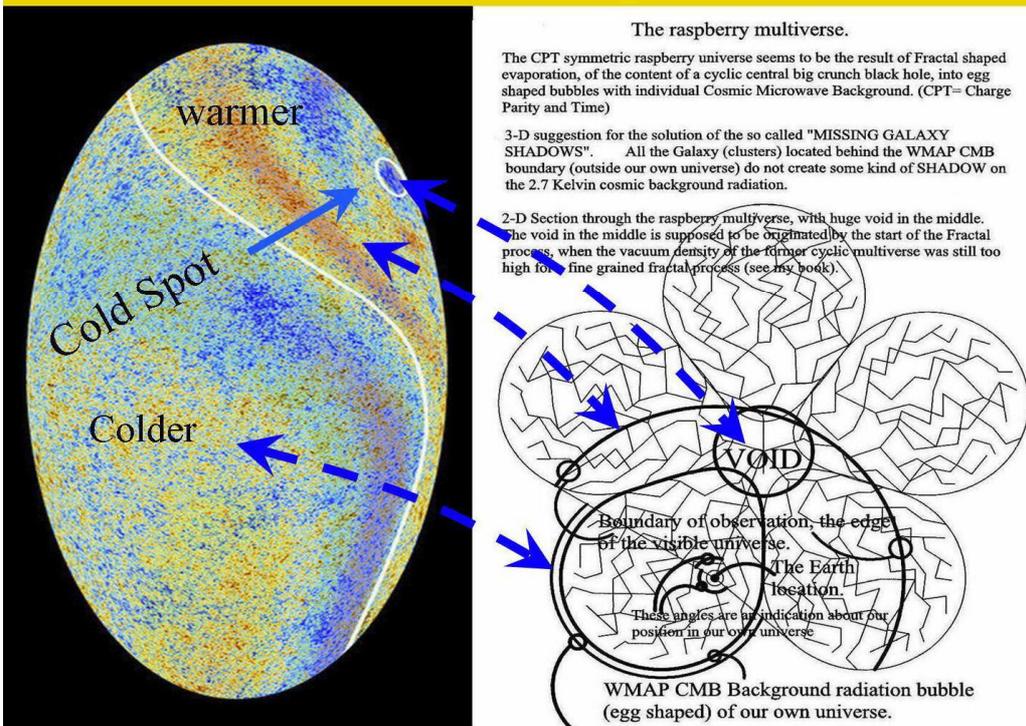


Figure: 13 ESA CMB Planck map compared with the 12 fold multiverse.

## Sunyaev-Zeldovich.

The missing Galaxy cluster shadows, are first described by Sunyaev and Zeldovich.

Comparison of the Final ESA CMB Planck map with a cross section through the Raspberry Multiverse according to Quantum Function Follows Form theory.

Compare the Cold Spot with the Void and the Warmer and Colder Hemisphere of the Planck CMB (left) with observation boundaries (right)

Conclusions:

- 1: The Warmer Hemisphere seems to be much smaller than the Colder Hemisphere!!
- 2: The white line between the Colder and Warmer Hemispheres is in fact a circle.
- 3: The Cold Spot location is located far from the Zenith of the plane constructed by the White circle line.

SO: the Sun's location inside the Universal Egg is exactly fixed.

IF THIS MODEL IS CORRECT, then future research will prove that the "Sunyaev-Zeldovich Galaxy clusters" ( without a shadow) are all located in the warmer hemisphere and as a consequence in a neighbouring universe outside our own Universal EGG.

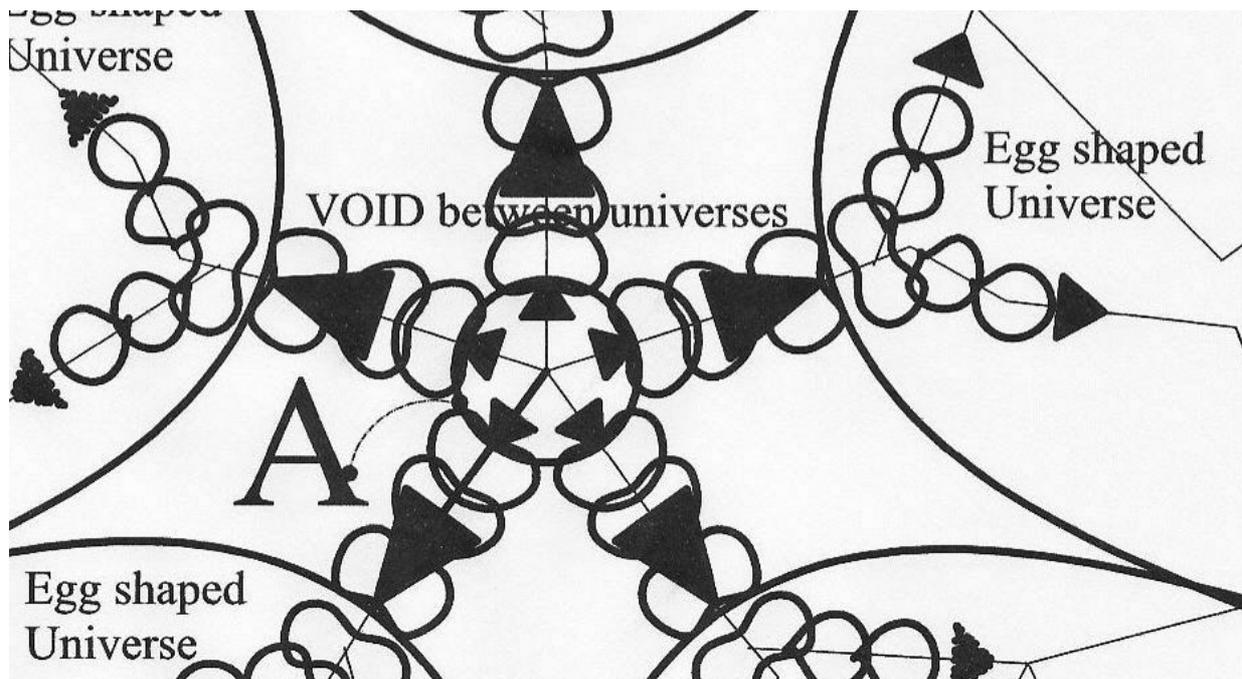
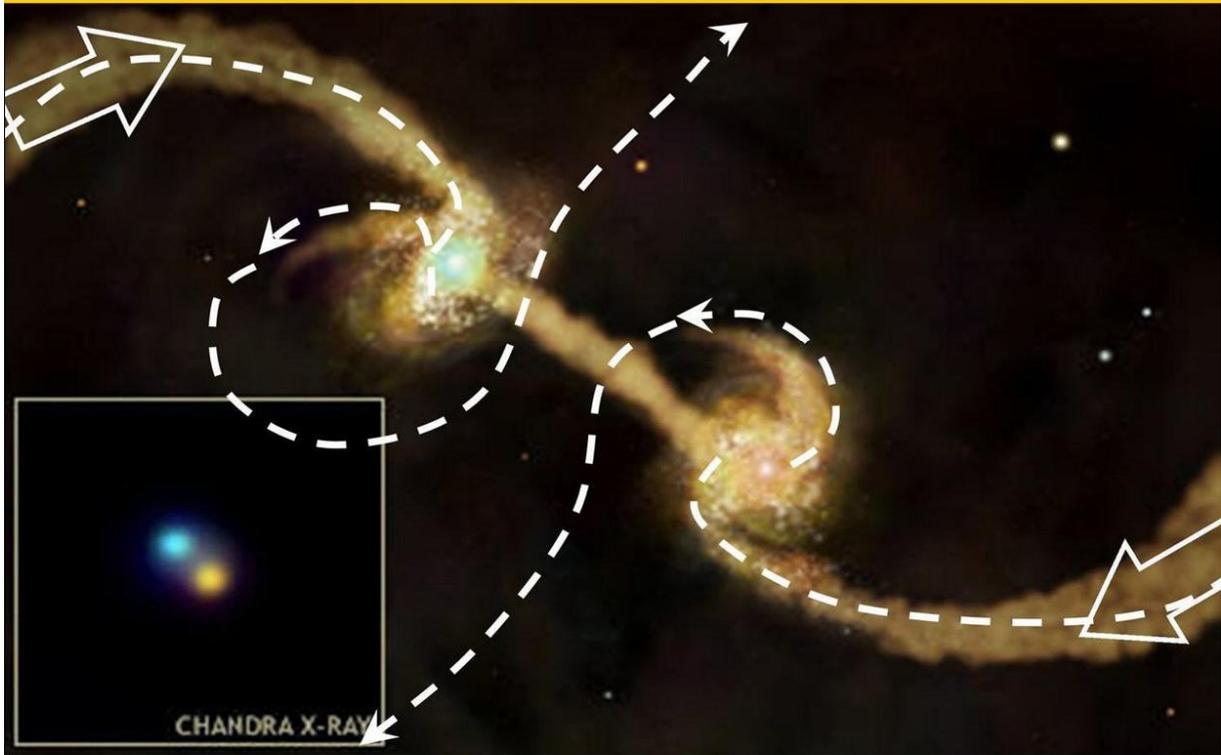
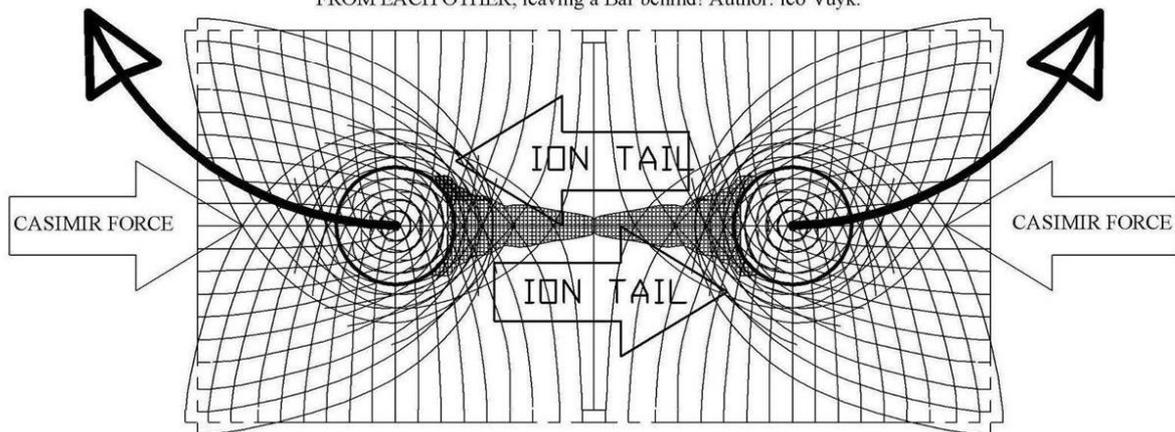


Figure: 14, The Navel Cords or Large Quasars Groups , we only see three of them.in the centre of the Multiverse.

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.

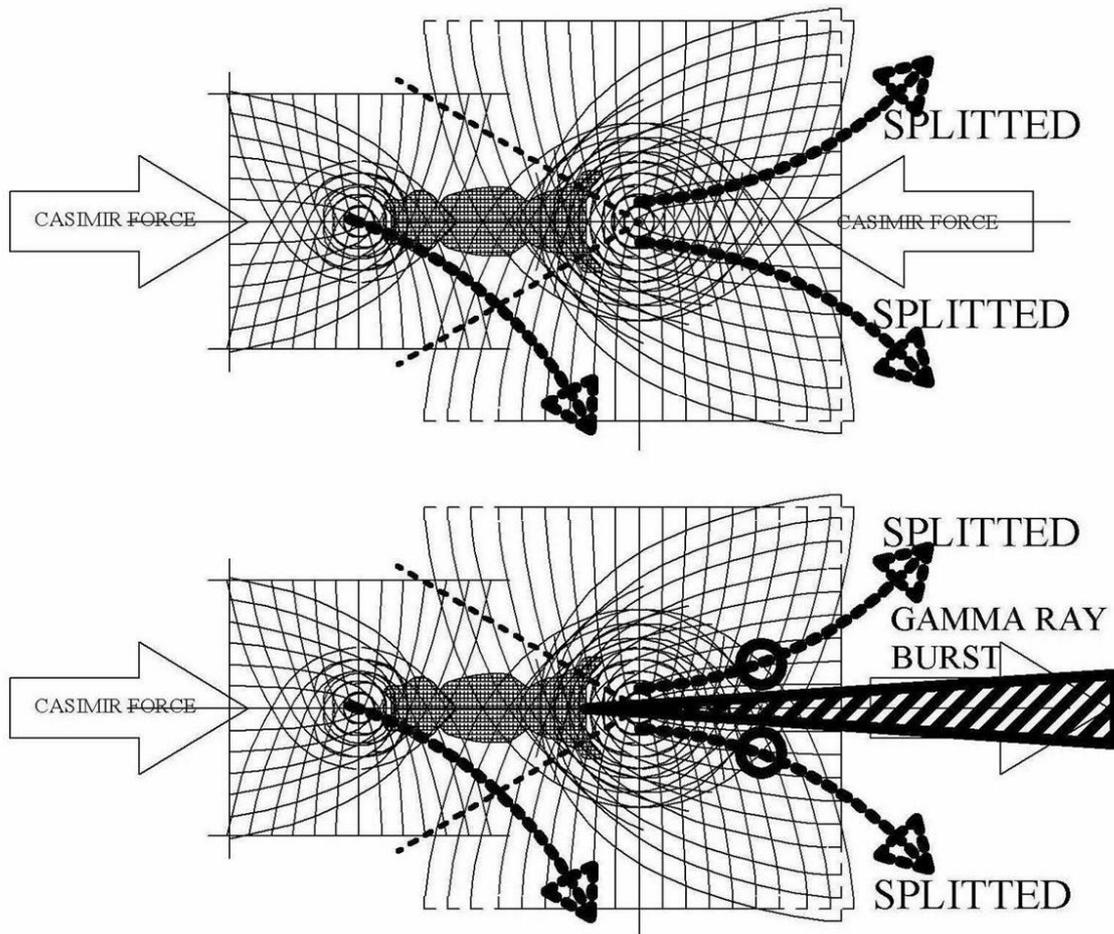


The casimir pressure structure of the Higgs dark energy vacuum around Pairing black holes

Figure: 15, Pairing Dark Matter Black holes .

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).

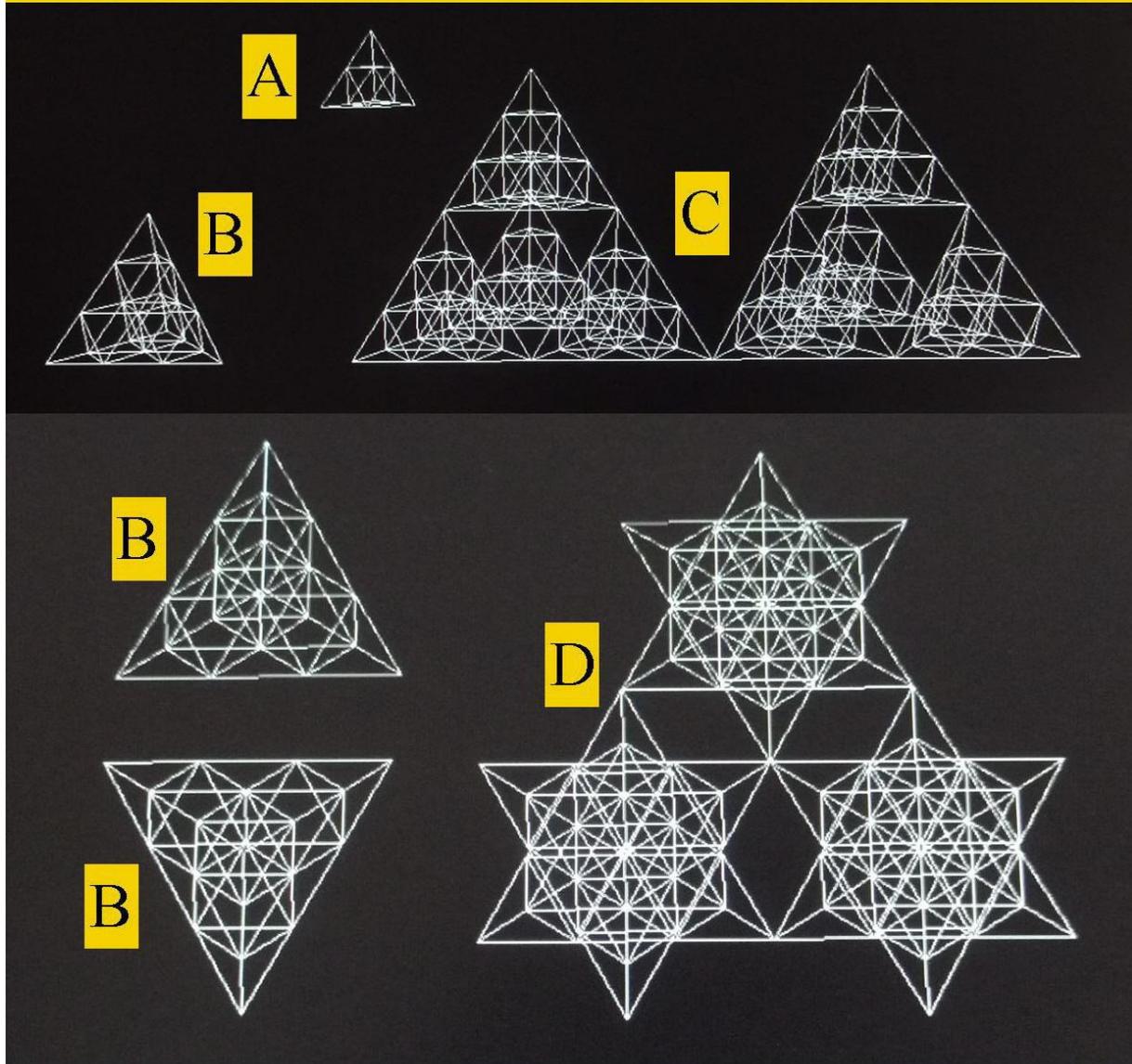
TWO REPULSIVE ION TAILS around electron jets (bar shaped) between two DIFFERENT sized black holes. THE SMALLER BLACK HOLE WILL SPLIT THE LARGER ONE BY ITS CONCENTRATED ELECTRON JET AND VACUUM INFLUENCE. Author: leo Vuyk.



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 origin of Gamma Ray Bursts.: smaller BHs tend to SPLIT larger BHs. So, the Big Bang Black hole splitting process create BHs of different sizes (nuclear HIGGS content). The largest bursts happen in the early universe (far away) such as in the LQG phase, as a start of the proliferation and down sizing process of Black Holes spread through the Lyman Alpha Forest system.

Alternative vacuum lattice structure with Octahedron and Tetrahedron elements in support of the 27 days moon related histograms incidental splitting into 2 to 3 periods, observed by S.Shnoll.



A; Basic element. B: 2nd stage element. C: 3D space filler with 2nd stage elements. (Below) D: Mirror symmetric combinations of the same structures. @Leo Vuyk

Figure: 17, Alternative Higgs vacuum lattice structure, as the result of the evaporating Black Hole Big Bang.

# 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: 18, Key elements of the new Quantum FFF (Function Follows Form) Theory.

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: 19, (Reference 30) Sketch of a part of the Lyman Alpha forest with Tendrils of single galaxies found to be common inside so called Voids. Tendrils are supposed to be the result of splitting/ evaporating fractal inflation black holes, just like inside the CMB background and are the forerunners of the CMB B-Modes.

Dual Symmetry between CMB hotspots and B-Modes as the smoking gun for a splitting black hole fractal inflation epoch. (according to Quantum FFF Theory)

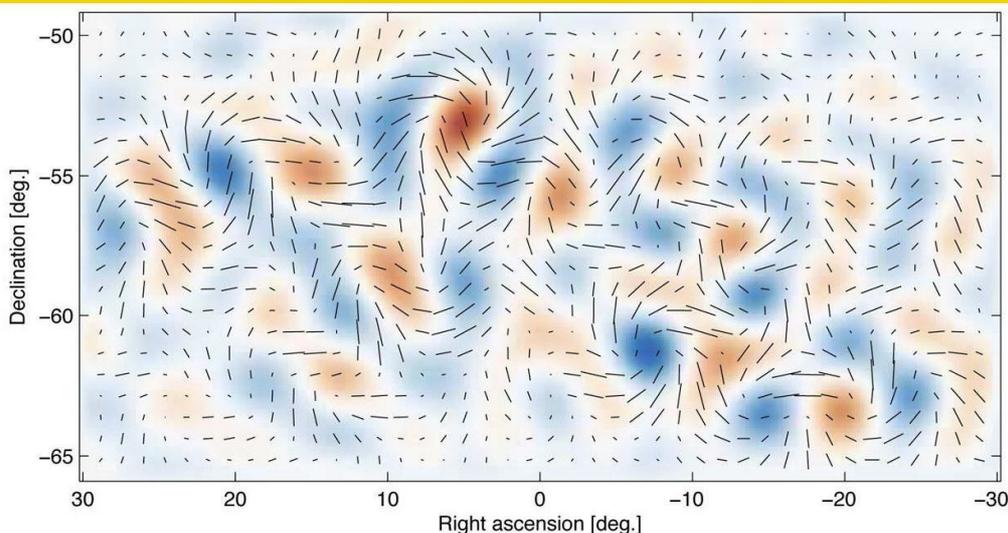


Figure: 20, the BICEP2 B-Mode resulting image of the Cosmic temperature hotspots. Most hotspots have a dual counterpart of comparable strength, as predicted by Q-FFF Theory.

Vacuum polarization between TWO black holes, the origin of Birkeland Alfven current transport and plasma concentration, according to Quantum FFF Theory.

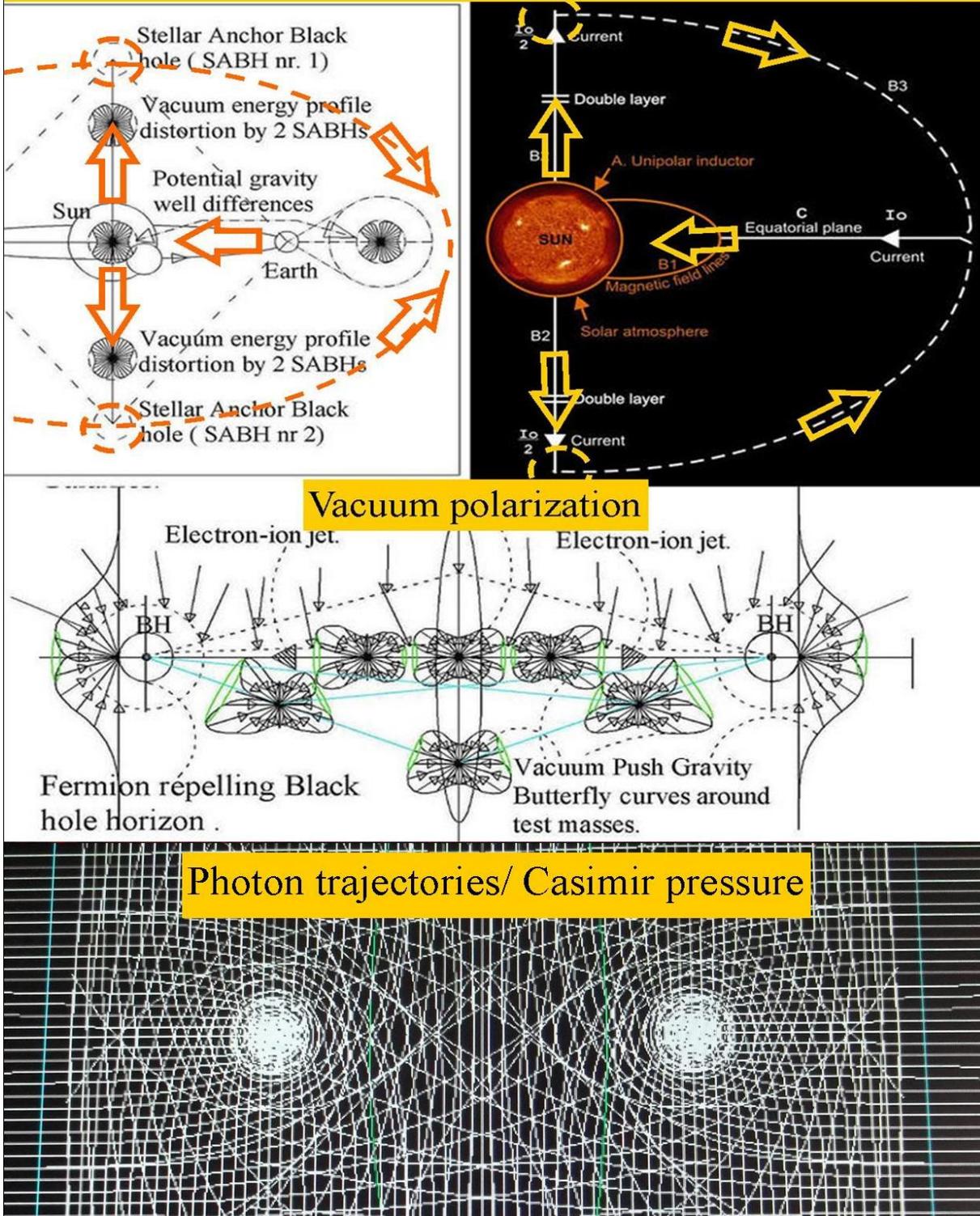


Figure:21, Birkeland – Alfven current circuits around the sun between dual SABHs ( Stellar Anchor Black Holes) The photon trajectories are for clarity based on 4x directional BH approaches only. Vacuum polarization (middle) and Photon trajectories ( bottom) are closely related.

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