

# **Ball Lightning, Micro Comets, Sprite-Fireballs and X-ray/Gamma Flashes according to Quantum FFF theory.**

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## **Abstract,**

FUNCTION FOLLOWS FORM in 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 consequence, a NEW splitting, accelerating and pairing MASSLESS BLACK HOLE, able to convert vacuum energy (ZPE) into real energy by entropy decrease, seems to be able to explain quick Galaxy- and Star formation, down to Sunspots, (Micro) Comets, Lightning bolts, Sprite Fireballs and Ball Lightning.

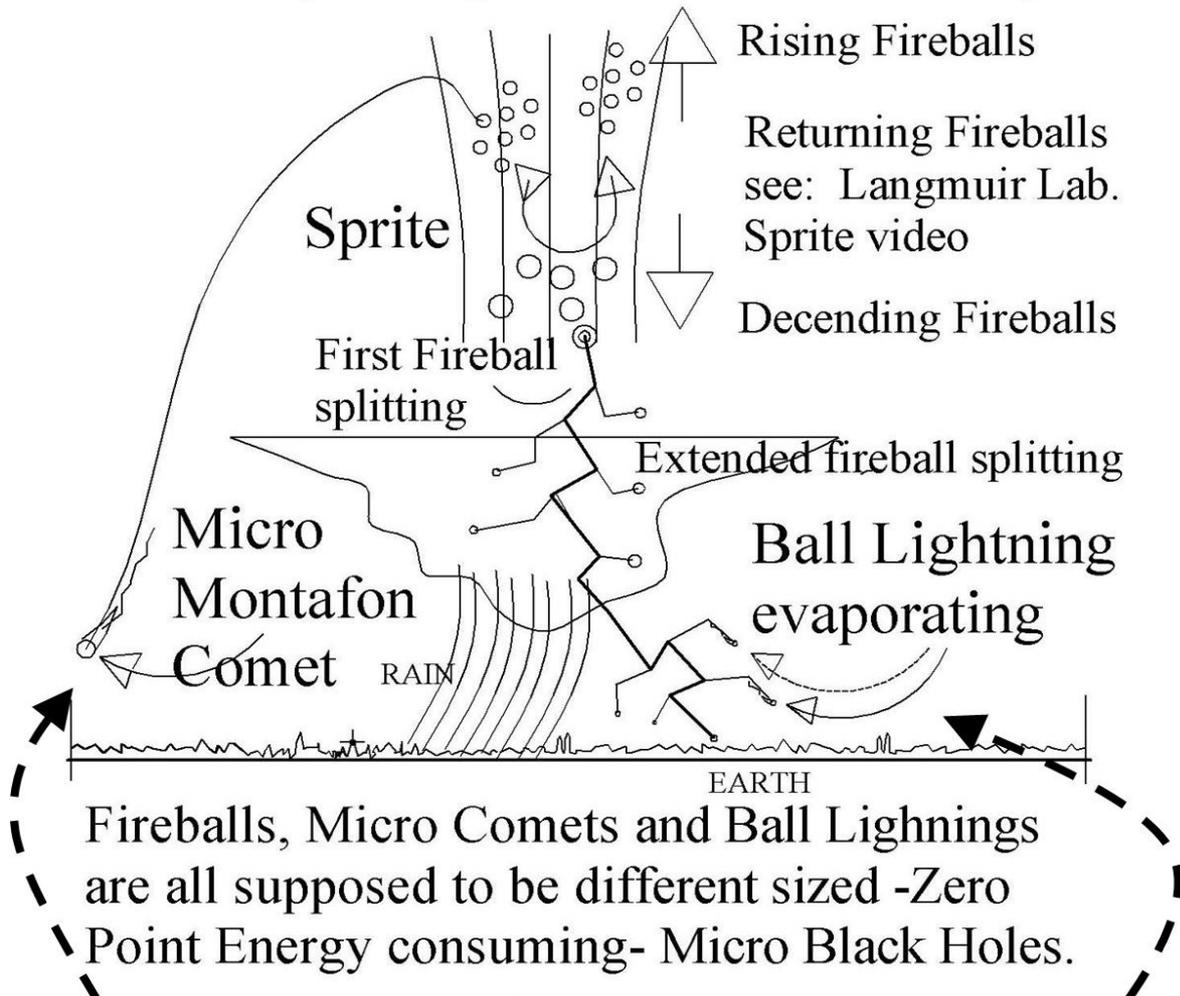
## **introduction.**

Quantum FFF theory states, that the vacuum is seeded with fast oscillating massless Higgs particles, oscillating along a complex chiral tetrahedral vacuum lattice, which has the ability to transfer Photon and Graviton FORM information in bunches of oscillations, through the vacuum lattice with the local speed of light. Ref [5,6,8,9]. 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 Black holes suffer only Higgs impulses and NO gravitons are escaping because the nucleus of the black hole is supposed to be a super dense knot of Higgs particles. (Ref. 2). Only the statistical sum of the different kinds of vacuum impulses from all directions on Fermions are responsible for all (energetic) phenomena in the universe. Ref.[1,2,3,4,9]

The accelerating plasma tail of NEW paradigm black holes (Ref.1,4), and the splitting black hole, is supposed to be the origin of a smooth proliferation of black holes in the universe and Gamma ray Bursts (GRBs). The Eagle Nebula, (figure: 10) seems to be a great example of a smooth proliferation of black holes by the splitting of black holes through Galaxies and Nebula.

In this letter, we present a comparable system of splitting black holes on the micro scale related to Sprites and Lightning bolts.

Production hypothesis for Ball Lightning and Micro Comets on Earth, according to Quantum FFF theory. 12-April 2011. Author Leo Vuyk.



Two observations as a support for the theory..

Figure 1, simplified representation of the relation between the creation of Fireballs inside Sprites and Lightning strokes with the resulting fireball effects on Ball lightning and Micro Comets as is found in Austria (Montafon area) by Werner Burger.

W. Burger reported: some raindrops fell thunder storm was far away.

A support for the hypothesis that Sprites located at the top of heavy thunderstorms produce micro black holes by x-ray- Em interference and presenting themselves as micro Comets or ball lightning.

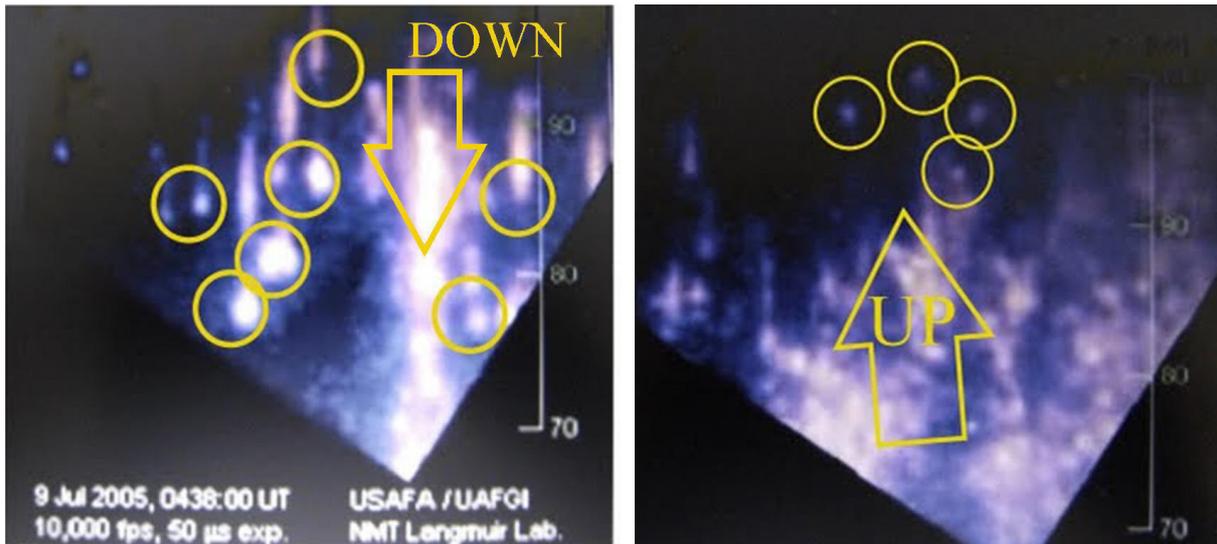


Figure 2, FIREBALL images observed inside a Sprite by a video. The video is made by a High speed camera (10.000 f/sec) of the Langmuir laboratory (USA, 2005) looking at 70-120 km altitude.

Left side: Fireballs are rapidly falling, right side and with only micro seconds delay, smaller Fireballs are rising.



Figure 3, Micro black holes, splitting and evaporating at the top of the lightning leaders, sometimes assumed to evolve into a ball lightning.

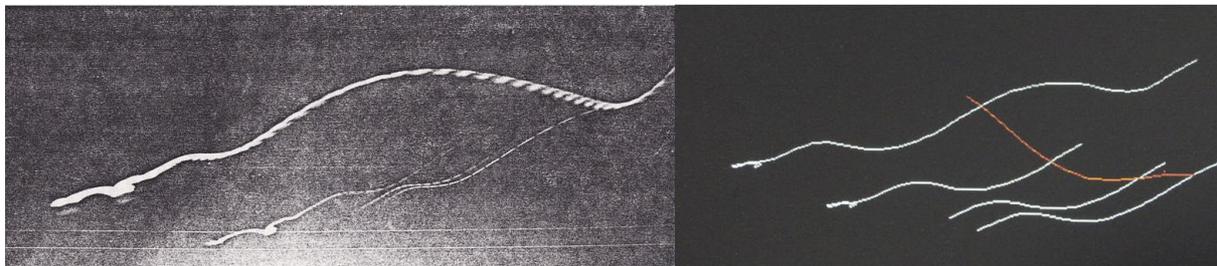


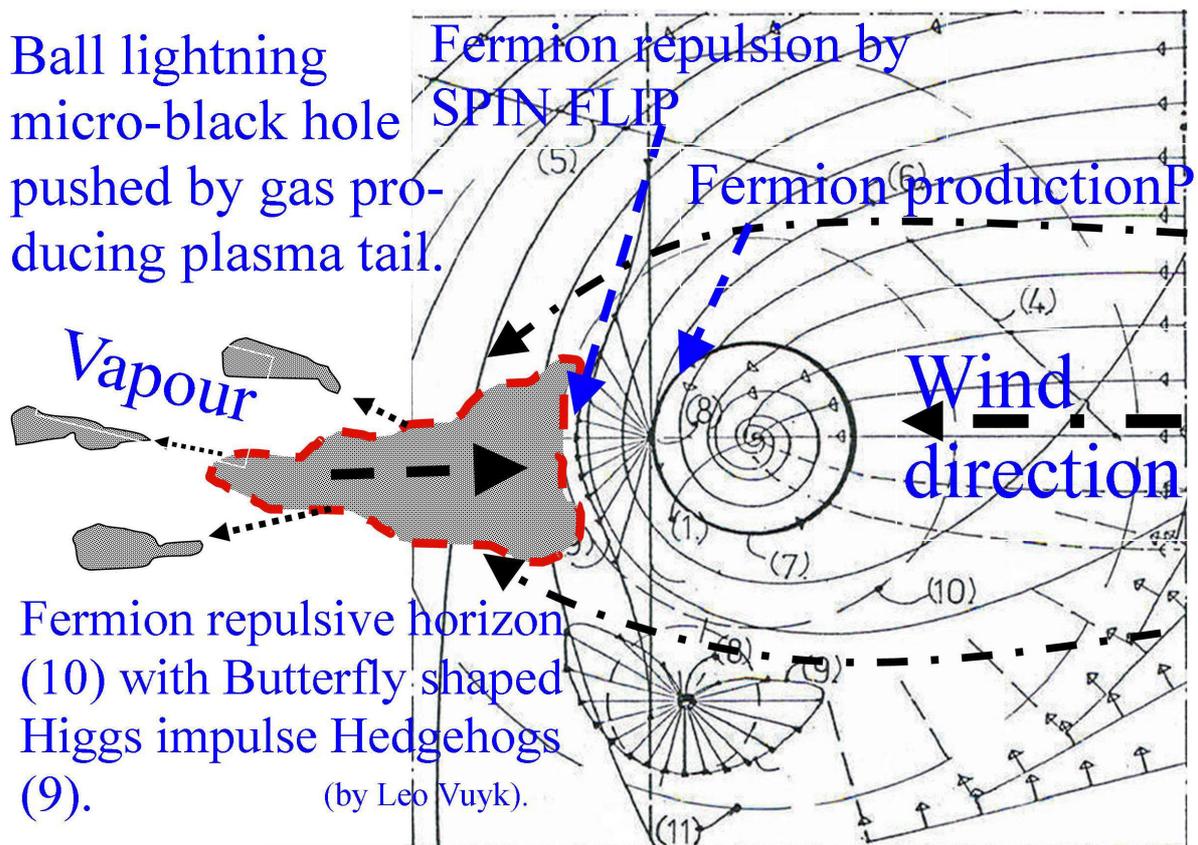
Figure 4, Example of micro black hole production possibly by strong electromagnetic or x-ray interference at sea level. There are four traces to be observed with comparable waveforms. ( see also at the right side: reconstruction image). The left photo is made by Mr. Overhagen (the Netherlands) by automatic shutter camera through his roof window, during heavy thunder storm. The two bumps at the end of two waveforms could be the start of the formation of a micro Black hole.

The same formation process is supposed to be active inside Sprites by the formation of Fireballs observed in the Langmuir videos (Figure 2).



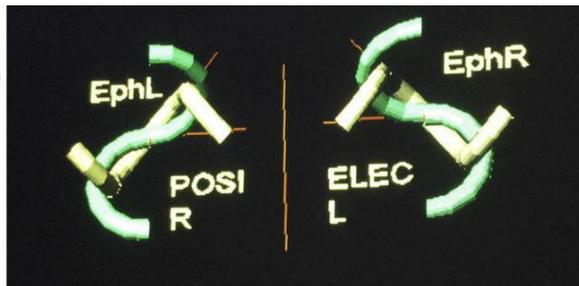
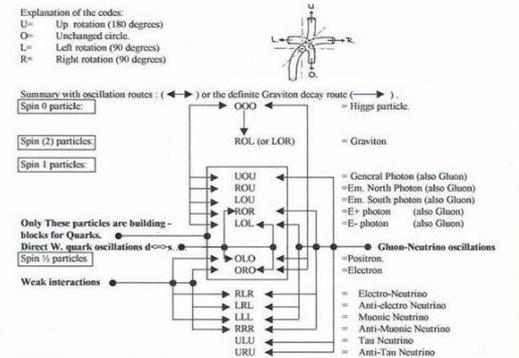
**Figure 5, Photo of a Ball Lightning made in Japan.**

Why is it that Fireballs inside sprites go down and UP again? The reason must be found in the comparison with Ball lightning qualities on earth, they seem to be pushed by plasma tails.



**Figure 6, It is assumed that the New Paradigm Black hole is able to use and accumulate so called "Zero Point Energy" to form Plasma tails which seem to be able to push the black hole away from the centre of mass of the earth. (Ref. 4 )**

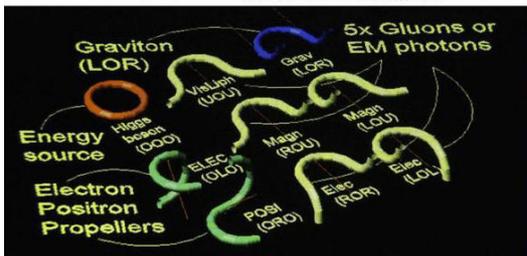
**ALTERNATIVE STANDARD MODEL**  
of elementary (single) particles with click-on potentials to form compound Quarks- and Leptons.  
(author Leo Vuyk)



2x mirror Symmetric Z particle left (1xElectron+1xPositron, ),  
 rightside: 2x mirror A-symmetric W+/- particles. (W-: 2x electron+ 1x Positron, W+: 2x Positron and 1x Electron)



Attention: 2x2 Mirror images (author: Leo Vuyk)



The alternative standard model with some 3-D examples of different particles?

Figure 7, the alternative standard model ref. [5]

## 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 8, The NEW micro black hole nucleus is supposed to contain only a small number of Higgs particles. Ref [4]



It is assumed that so called Universal Gamma ray Bursts are produced by the splitting of micro or mini-black holes in space, such as inside Planetary Nebula. (figure 10) **Ref [4]**.

It was recently confirmed, that strong Terrestrial Gamma ray Flashes (TGFs) were related to Sprites! **Ref [12]**

This seems to be a strong support for the postulate that Fireballs inside Sprites are related to micro black holes.

Professor Joseph Dwyer was the first who found that x-ray flashes were connected to the splitting of stepped leaders of lightning strokes. **Ref [13]**.

This seems to be a strong support for the postulate that stepped leaders of lightning, are produced by splitting micro black holes.

Dwyer's main conclusion: As the lightning comes down from the cloud toward the ground in 30- to 160-foot stages known as "steps" in a "step leader" process, the X-rays shoot out just below each step, mere millionths of a second after the step completes!!

## Less Is More” and “Form Follows Function”.

The Aphorisms: “Less Is More” and “Form Follows Function”, of Modern Architecture, introduced by Mies van der Rohe respectively Louis Sullivan, seem to be REVERSIBLE in Nature.

Why, because at the Planck scale, the FORM of particles and the way particles are able to connect to each other and form compound quarks, seem to be the origin of the particle FUNCTION.

As a result we may say: FUNCTION FOLLOWS FORM in particle physics and beyond, because it seems that the fermion form is also the origin of Fermion repulsion (spin flip) at the black hole horizon.

At the Universal scale however, CPT ( Charge, Parity and Time) SYMMETRY between entangled copy Universes, forming a Multiverse with Raspberry geometry, seems the most logical solution for a theory of everything. (ref 3).

### **QUANTUM FFF Theory.**

Quantum FFF theory states, that the vacuum is seeded with fast oscillating massless Higgs particles, oscillating along a complex chiral tetrahedral vacuum lattice with the Planck scale. The vacuum lattice has the ability to transfer Photon/Gluon/Neutrino and Graviton FORM information in bunches of Higgs oscillations with the local speed of light.

The massless Higgs particles are supposed to be the driving force of all propeller shaped Fermions by scattering processes and give Fermions a double axed spin.

The first Fermion propeller spin axis is supposed to point into the direction of absolute motion through the vacuum lattice to compensate for the net-resistance of the lattice. (resulting into the Davies/Unruh effect)

The second axis of Fermion spin is supposed to be aligned with the Magnetic poles of the Fermion radiating two different kinds of magnetic monopole photons.

The Graviton and Electric photon radiation is supposed to radiate with an equatorial distribution to the second spin axis.

As a FIRST consequence there are no attraction forces on Fermions in the universe. Gravity seems to be the result of two different impulse arrays: the massless Higgs impulse array and the (less effective) massless Graviton impulse array. (Higgs Dark Energy Particle)

As a SECOND consequence, Black holes suffer only from Higgs impulses and NO gravitons can escape the black hole. The Black hole nucleus is supposed to be a super dense knot of Higgs particles, which act as Dark Matter particles inside a Dark Matter Black Hole. Only the statistical sum of the different kinds of Higgs-Photon vacuum impulses from all directions on Fermions are responsible for all energetic phenomena in the universe.

As a THIRD consequence, All Fermion and Photon particles are supposed to be entangled for all wavefunction collapses by a new form of entanglement between at least TWO copy Multiverses.

This Multiversal entanglement can be called Consciousness. Intelligent systems seems have a retardation system for the entanglement process of wavefunction collapse, which could be able to produce human responsibility and human moral.

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**Conclusion,**

The described observations related to Sprites and Lightning phenomena are a strong support for the new Black hole paradigm of Quantum FFF theory described in references [1-9]. The production of Fireballs inside Sprites is supposed to be the start of all stepped lightning leaders and micro Comets, after a splitting process of the Sprite Fireballs into smaller sized micro black holes.

This process is supposed to produce the Terrestrial Gamma Flashes. (TGF) Some of these smaller reduced Fireballs seem to be able to rise again, pushed by plasma tails and become so called micro Comets forming an icy crust around the nucleus.

By forming more and more ice, the weight of the micro comet will increase. After the weight becomes in equilibrium with the pushing power of the plasma tail, the Micro Comet will start to fall down to earth, like the Montafon Comet seems to do. ( Fig. 1) The rest of the reduced Sprite Fireballs seems to be unable to form plasma tails and are supposed to be the origin of x-ray emitting hotspots of the stepped leaders going down.

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