THE BUILDING FROM HIGGS PARTICLES TO THE (ANTI-)PROTON AND THE (ANTI-) ELECTRON:

● To this date Einstein, the founders of the Big Bang theory and current science (2015) failed to show *step by step* according to the *minimum/maximum principle or min/max 1 principle* and thereby to make clear:

a) the process of 'pure energy' to the most basic 'proton-higgs' and 'electron-higgs' being the higgs particles,

b) the steps from elementary 'proton-higgs' particles and 'electron-higgs' particles up to the (anti-)proton, (anti-)electron to the hydrogen atom,

c) the path from hydrogen up to the isotopes of the periodic table.
   That is why the author himself was obliged to find solutions in the context of the universe cycle.

● Document F1a 2014 (English) www.uiterwijkwinkel.eu describes and visualizes the two elementary (anti-proton-higgs and the two (anti)electron -higgs. In all four of them exists kinetic energy caused by three angular velocities, mutually perpendicular to each other, so that does occur a string. Against it higgs protest by generating: (anti-)mass, b) an electrical charge, and c) magnetic spin.
   The higgs particles can generate *only* electrical forces and magnetic forces.

● Those pairs of strings are super symmetrical to each other and therefore 100% their mutual antiparticle considering the most basic physical characteristics: 1) spatial form, 2) kinetic energy/ angular velocity/ rotation and torsions, 3) (anti-)mass, 4) electric charge, 5) magnetic spin and 6) elementary time (!).

● Proton-higgs and antiproton-higgs cannot annihilate with each other. As well that goes for electron-higgs and anti-electron higgs particles.

● These four particles make the Uiterwijk Winkel's standard higgs-model that applies to all matter with higgs particles in the *relative calm* state. Approximately 99.99% of the higgs particles in the universe are in that state continuously.

● Universe widely this *relative calm* state is characterized by a fixed amount of kinetic energy in the higgs level. This results in three constant angular velocities. The rotation around their longitudinal axis is fast relative to the two transverse axes and result in three constant deformations being torsions against which these resist by continuously generating a constant amount of space, mass, charge and spin.

● Such constant particles are not found in the research in particle accelerators and nuclear reactions! The remaining approximately 0.01% of the higgs particles are energetic in extreme conditions with higher or lower angular velocities that result in a bigger or smaller space, higher or lower mass, charge and spin. That situation occurs in particle accelerators, while nuclear (fusion) reactions and similar conditions in the universe. For those higgs particles and structures of them no constant values for space, mass, charge and spin will be available. The current Standard model applies with its three levels: up/down, charm/strange and top/bottom.

● In constant relative calm state antiproton-higgs and proton-higgs each other through charge and spin producing 'strong charge bonds' and 'weak spin bonds'. As a result, with these higgs particles can be made larger structures:
   a) at first to a photon and then to constructions with multiple photons to
   b) in the end up to the (anti) proton and the (anti) electron with the added property (anti-)matter.
   Only at the level of matter/antimatter annihilation can take place!

● Between a) and b) a level to indicate where the characteristic of (anti-)matter or (anti-)matter is added to the constructions of photons.
   The author makes the following hypothesis: in the universe such constructions of photons rotate around their longitudinal axis with the highest possible angular velocity adding kinetic energy and characterization of matter (clockwise rotation) or of antimatter (rotation anticlockwise).

● **Document F1c** outlines how from these four basic higgs particles as the only ones stable (anti) proton and also stable (anti) electron can be built. The (anti) neutron is composed of one (anti) proton and one (anti) electron and is not a separate component of the atom or the atomic nucleus.

● Using these four stable building blocks can be constructed all (anti-) atoms of the elements, both in normal condition and in the black hole state.

● In **document F1D** is outlined the structure of the hydrogen atom from the (anti) proton and the (anti), electron, and then of the elements of the Periodic system via nuclear fusion. Upon the collapse of ordinary atoms creates the periodic table of elements into a black hole condition; **document F1E**.

   Ir. A.P.B. Uiterwijk Winkel
   *) Thanks to the remarks of Franklin Roos,
   **) Thanks to Adarshi Yadava for Figures
   ***) Copyright

* 1. INTRODUCTION:
In **document F1a** 2014 www.uiterwijkwinkel.eu the four elementary higgs particles were derived; two of the proton and two of the electron. Those higgs pairs are super symmetric and they are each 100% antiparticle but cannot annihilate each other!

Both absolutely mirrored particles have both qualitative and quantitative completely opposite physical properties being a) kinetic energy, b) mass, c) electric charge, d) magnetic spin; e) spatial form and structure and f) elementary time. See **figure 1c** and **figure 6a & 6b**.

(The figures in this **document F1c** the author has retained the same numbering as in the figures in **document F1a** 2014)

Essences:
a)   All elementary higgs particles resulting kinetic energy in three angular velocities and with three twists on all higgs particles against which the particles resist by generating only electrical charge (force), magnetic spin (force) and (anti) mass. At such a higgs particle is not left any space for generation of gravity or for any other physical or chemical force.
b)   The other physical and chemical forces arise only if there are atoms with speed relative to the center C of the universe.
c)   Basic mass is not free to convert into energy and energy cannot return to mass. In the theory of relativity it is possible. Mass and antimass are purely the result of rotation. (Anti) mass is not equivalent to energy!
d)   Under all circumstances all kinetic energy in the universe is always 100% pegged to higgs particles, quarks and atoms and hence to (anti)mass.
e)   In all cases, it appears that 'pure' energy turn out to be majorana particles (e.g. neutrinos and photons) as explained later; **document** F1b.
f)   Inside that majorana particles all (anti) mass, electric charge and magnetic spin remains present unchanged besides kinetic energy. On the outside of majorana particles (neutrinos and photons) the measurable mass, charge and spin is exactly zero. However majoranas behave as dipoles and quadrupoles.
g) Ostensibly photons seem to be pure energy which is not the case; they contain real but invisible particles! To the present (2014) science is put on the wrong track by majorana particles!
h)   Basic mass and anti-mass, charge and magnetic spin of similar higgs strings pull each other through charge and spin and form bonds. In the bonds their oppositely directed rotation rate cannot be abolished. On higgs level annihilation never can occur!
i)   With the proton-higgs and electron -higgs can be formed larger structures through their elemental (anti mass, charge and spin; first up to a maximum of (anti photon and then to the pre-stage of the (anti proton and the (anti electron and eventually to the entire (anti proton and (anti electron.
j)   On the basis of the found higgs particle by CERN in 2012 and due to the current Standard model the author did not succeed to reconstruct the (anti) proton! This also applies to the (anti) electron.
k)   That is why he was forced to work out a solution which is original and it cannot be found in the literature.
l)   Consequently the author was forced to work out are original solutions which are not found in the literature.

2) The super symmetric standard model of Uiterwijk Winkel:
In **document F1a 2014**, the author has developed its own Standard model that applies only to the four higgs particles in the relative calm rest state. Approximately 99.99% of all elementary higgs particles in the universe are continuous in that condition. That model of Uiterwijk Winkel consists only of four higgs particles which are super symmetrical two by two for 100%, and which are each other's anti-particle; see **figures 1c** and **6a** and **6b**. This extremely simple standard higgs particle model of the author is not professed in science until now (2015).

3) Current Standard Model:
These Uiterwijk Winkel's four elementary higgs particles in the relative calm situation are purely hypothetical. Those particles cannot be confirmed to get through research in particle accelerators! Immediately after collisions and during nuclear reactions encountered higgs particles are always in a state of *extreme energy*. This is the condition in which the particles are found during those collision experiments. Those extreme states match the current Standard Model: up/down, charm/strange and top/bottom. They belong to about 0.01% of the higgs particles in universe.

4) Hypotheses:

a) In the relative state of rest universe wide the higgs particles have a constant amount of intrinsic kinetic energy which results in three constant angular velocities of those particles to their longitudinal axis and around the two transversal axes.

b) Universe widely those rotations result in three fixed and constant distortions and thus three constant twists inside the higgs particles arise. This causes space and volume and complete absence of singularity.

c) The higgs particles resist this distortions by generating a fixed and constant amount of 1) (anti-) mass, 2) positive or negative electric charge and 3) magnetic spin ↑ or↓ as a solid and constant 'trinity'.

d) The main rotation around the longitudinal axe of the proton-higgs particle is perpendicular to the one of the electron-higgs string. These angular speeds are such that both higgs generate the same electric charge (only + and - sign differ) and magnetic spin (only directions are reversed).

e) The mass of the proton-higgs string is approximately 1.840 times heavier than the mass of the electron-higgs string.

f) Universe wide in the relative calm state proton-higgs particles and electron ones generate the same absolute constant amount of (anti) mass, electric charge and magnetic spin forever!

5) Valuation of kinetic energy is always associated with (anti) mass however not on higgs level:

During the relative calm state the surplus of kinetic energy in the universe has not been placed on higgs (lowest) level, where it is not accepted ever. That surplus kinetic energy cannot manifest as a stand-alone physical phenomenon! That kinetic energy is under all circumstances for 100% linked to (anti-) mass or (anti-)matter and results in higher levels than the higgs levels and in all linear, rotational and vibrational motions of the particle and of these larger particles as a whole. This is expressed in linear movements and rotations of these particles in the universe sphere shell and in temperature of the molecules.

6) In particle accelerators and during nuclear reactions never a relative state of relative rest existed:

During nuclear reactions and collisions in particle accelerators at higgs level the amount of kinetic energy is increased and sometimes lowered depending on the angle of the collision. In either case, contact with the relevant higgs particles or constructions of higgs particles in an energetically extreme state.

This temporary increase or decrease of kinetic energy higgs level results in temporary larger or smaller torques on higgs level which results temporary changes by that higgs particles generated quantity of (anti) mass, charge and spin increased or decrease compared to the same higgs particles or structures of higgs particles in the relative calm situation!

That *extreme situation* occurs quite rare and usually in short term and covers approximately 0.01% or less of all higgs particles in the universe. For those energetic particles in the extreme state applies the current standard model with three levels up/down, charm/strange and top/bottom. (These three levels are the result of three preferred ratios between the angular velocity about the longitudinal axis and the angular velocities around the two transversal axes)

7) Unfortunately author's Standard model cannot be investigated experimentally:

Uiterwijk Winkel's Model of the four higgs particles in relative calm state cannot be verified through research in particle accelerators or anywhere else unfortunately! For this, the proton or electron should be decomposed and in fact that can only during collisions and other extreme conditions.

Then however on higgs level inevitably automatically the released higgs particles automatically get into an *extreme energetic state*. Correspondingly, therefore, change the angular speeds, torques and the shape and volume of the particle and hence by the higgs particles generated quantity of a) (anti-) mass, b) charge and c) the strength of the magnetic spin. In mass spectrometers *extreme situations* result for (structures of) higgs particles in completely different values than applied for the relative calm steady state before the collision!

Through particle accelerators obtained higgs particles and other debris from protons are always in a state of extreme energy and never quantitatively representative set for the same particles in the relative quiescence just before the crash!

8) Majorana particles:

Document F1b discusses the majorana particles. These particles are made up of an equivalent number of ordinary higgs particles and anti-higgs particles. These majorana buildings have not any net measurable mass, charge and spin more on the outside. These values of each are exactly zero.

All possible majorana particles will be discussed here:

a) all forms of (anti-) frankinos (neutrinos) and

b) all forms of (anti-) photons.

9) From higgs particles to the proton and electron:
In this paper **document F1c** based on these four super symmetric higgs particles the author as the first person explains how *possibly* the (anti-) proton and the (anti-) electron can be built from the photons and half (!) photons.

Important steps in it:
a) forming from higgs particles and photons of half photons
b) the formation therewith of larger structures up to the basic structure of the (anti) proton and the (anti) electron with already all its physical characteristics as mass, charge and spin but without the characteristic (anti-)matter,
c) adding to this basic structures rotational energy and thus the characteristic of (anti-)matter to the (anti-) proton or (anti-) electron.
The (anti) proton and (anti-) electron are the biggest possible constructions of higgs particles.

* 2) FACING THE ISSUES:

1) The generally accepted "Standard Model of elementary particles" cannot be used:
Atoms are made up exclusively of protons and electrons; the neutron consists of a structure of one proton and one electron. Extensive research in particle accelerators has resulted in the current Standard Model of elementary particles and in fact it only applies to (all) particles in an energetic extreme condition.
With the particles of the 'Standard Model', fully accepted within the exact sciences, the (anti-) proton and the (anti-)electron unfortunately cannot be (re)constructed. That is why the current Standard Model is not suitable or useful to describe matter into the relative quiescent steady state, such as the (anti) proton and the (anti) electron!

2) It is unclear how the proton and electron are built:
Einstein and the creators of the Big Bang theory have wrongly failed to elaborate:
a) the step by step process *) from '100% pure energy' to the most basic higgs particles and
b) the step by step process *) from the elementary particles to the proton, electron or neutron.
In this **document F1c** the author elaborates this tricky building process step by step from the most basic level higgs particles to the (anti-)proton and (anti-)electron.

*) All cases of (nuclear) physical processes and (bio) chemical reactions are to analyze into single steps. It should meet Uiterwijk Winkel 's *minimum 1 and maximum 1 principle* (min/max1). During every reaction or process on atoms/molecules at any time only one (nuclear) physical change or only one chemical change can occur; at exactly the same moment never two changes/steps or more!!
See **boxes 5** and **6** of **document B1** at www.uiterwijkwinkel.eu now in the more recent **document F1f of 2014**.
A brief summary in **Chapter 5.1**.

3) Einstein's $E = mc^2$ does not meet the *min/max 1 principle at a time*:
This principle applies fully and mandatory for all physical processes, all nuclear reactions, all collisions in particle accelerators and for the step by step build-up during fusion of the elements of the periodic table according to the isotope table Wikipedia. That step by step analysis succeeds in any case!
The settlement of Einstein's $E = mc^2$ and his theory of relativity should comply the *min/max 1 principle*.

Unfortunately Einstein's formula $E = mc^2$ is not successful in any way. The stepwise transition of energy ↔ mass fails! $E = mc^2$ and the theory of relativity does not meet this most basic *min/max 1 principle*. This has major implications for the sustainability of this theory!

At the most basic level of higgs particles mass and anti-mass are created. Such mass and anti-mass cannot annihilate together. The higgs particles remain untouched!
Annihilation is possible only if there is matter and antimatter. Such (anti-)matter consists of constructions of photons with added rotational energy. During annihilation photons are emitted and their rotational energy obeys $E = mc^2$. So annihilation meets quantitatively to the formula $E = mc^2$ while mass is not converted into energy. The m in Einstein's formula is not for m = mass (higgs level) but only for m = matter or antimatter in case of (anti)protons and (anti)electrons! See **figure 15e.**

4) The current exact science recognizes no clear transition from mass to matter:
In the current exact science is no clear distinction between the physical phenomena mass and matter. Both terms are often used more or less interchangeably. The author defines the following distinction:
-) (anti-)mass, charge and spin are generated due to the three rotations of the higgs particles;
-) (anti-)matter arises when (anti-)protons and (anti-)electrons have added kinetic energy.

The author defines matter and antimatter as structures of photons (constructions of higgs particle) with no measurable mass, charge and spin and half-photons (no majorana particles) which rotate around their axis equatorially very near the speed of light clockwise and anticlockwise. These extremely rotating half photons are the 'rotor photons'). In the end the angular velocity around the longitudinal axis is approximately a thousand times faster than the ones around the two transversal axes!
Unlike photons their (anti-)matter is 'visible and tangible' present because they have measurable mass, charge, spin and kinetic energy!

5) A very different view of annihilation and very different explanation of Einstein's formula $E = mc^2$:
The same amount of matter and antimatter can annihilate each other. During annihilation:
a) the extreme high speed of rotation clockwise and rotation anticlockwise both are diminished incrementally,
b) only photons (majorana particles) are emitted with their original, no longer visible nor measurable amount of mass and antimass, charge and spin and
c) also $E = 2$ x ½ $mv^2 \approx mc^2$ is set free and available to rotational energy. (m = (anti-)matter!)
See **figures 15a – 15e.**

In this way the annihilation process complies fully with both the *min/max 1 principle* and quantitatively to Einstein's formula $E = mc^2$. In the author's vision however the (anti-)mass has been conserved and completely untouched!
In science, this revolutionary vision: a) transfer of (anti) mass to (anti-)matter and b) completely different explanation of the phenomenon of annihilation has still not yet recognized.

6) The new interpretation of $E = mc^2$ fits within the universe cycle; the current prevailing explanation of Einstein's formula does not:
The author's views with respect to matter, antimatter, annihilation and results in a completely different interpretation and outcome of the formula $E = mc^2$ over to the year 2014 than is common in science. This also results in an entirely different explanation of the theory of relativity and ultimately the downfall of it.

This new vision of annihilation fits the author's universe cycle unlike common explanation of the theory of relativity till 2014! See **documents G7** and **G8** at www.uiterwijkwinkel.eu .
The universe cycle leads to a different interpretation of the concepts of time, space and gravity than the one of the theory of relativity.

* 3) PURPOSE OF THIS DOCUMENT:

In this paper the author describes the structure of the (anti)proton and the (anti-)electron from the four elementary higgs particles of *his* Standard Model. The transition from (anti-)mass to (anti-)matter is elaborated and clarified. The author believes it has not been done previously nor it can be found in the literature. So in this document you will find no references.

* 4) ASSUMPTIONS:

1) The four elementary higgs particles with fixed combinations of kinetic energy, mass, charge and spin:
All matter in the universe in the relative calm state is based on only four elementary higgs particles:
- One spiral with volume, mass, charge and spin of the proton-higgs particle;
- the same way for the antiproton higgs particle and
- One spiral with volume, mass, charge and spin of the electron-higgs particle;
- the same way for the anti-electron higgs particle.

The mass of the electron-higgs particles is 1,850 times smaller than the mass of the proton-higgs particles.
Those pairs of proton-higgs particle and proton anti-higgs particle are super symmetric in all respects and thus each spiral is spatially, physically and energetically mirrored, see **Figure 1c document F1a 2014**.
Independent neutron (anti-)higgs particle do not exist.

2) The Standard Higgs model according Uiterwijk Winkel:
The four elementary higgs particles are shown in the relative rest and steady state position in **Figure 1c**, and **6a** and **6b**, with the most basic features only: a) space, b) (anti) kinetic energy, c) (anti) mass, d) + or - charge, e) oppositely directed magnetic spin ↑ or ↓, f) positive or negative elementary time which is linked to the number of rotations per unit of time of the higgs strings.
(This elementary time is not relevant to our understanding of time. Our time is linked to the cycle of universe, universe and associated clock time which started at zero at the time of the Little Bang, about 40 to 45 billion years ago; see **documents G7 (text) and G8 figures))**

On this elementary higgs particles gravity, other physical forces and chemical ones are absolutely absent and so these quantities are exactly zero! Gravity is absence as well! Those forces are generated only on atoms with velocity relative to the center C of the universe!

Universe wide in the relative calm steady state the elementary proton-higgs particles generate only the quantitative fixed combinations of volume, (anti-)mass, + or - charge and ↓ or ↑spin.
1) The rotations of the proton-higgs particles around the longitudinal axis are perpendicular to the ones of electron-higgs particles. Due to that in such a way the angular velocities are mutually adapted to each other; see **Figure 5**. This is the electric charge and magnetic spin of all higgs particles quantitatively equal and they differ only in the combinations of + and - sign or direction.
2) During collisions in particle accelerators released higgs particles have a higher or sometimes lower kinetic energy and angular velocities and therefore they do not have standard values. The released higgs particles also have their own linear speed!
3) The electrical force is about a thousand times stronger than the magnetic force.

3) Canceling in measurements:
During measuring cancel:
a) mass and antimass,
b) kinetic energy and anti kinetic energy,
c) positive and negative charge and
d) parallel ↑ spin and antiparallel ↓ spin.
Incidentally this is quite normal in dipoles and quadrupoles.
That mutual cancellation of (anti-)mass and (anti-)kinetic energy results in all objects contained in the universe in reality much more mass than we could measure from the outside!

4) No bonds between elementary proton-higgs particles and electron ones. For 100% the (anti-)proton and the (anti-)electron consist of their own higgs particles:
By combinations of the different + and - signs only stable bonds are possible between proton-higgs particles mutual and in the same way between the electron-higgs particles!

Between a proton-higgs particles and an electron one stable bonds are not possible because either the sign of a charge or the directions of the spin do not click mutual! A positive proton-higgs particle cannot bond a negative electron-higgs because the combination of the two spins are in the same direction and then they repel each other.

The force system is not getting appropriate for stable bonds between the two different higgs particles.
In the end for 100%, to form stable (anti-)protons have been constructed from only proton (anti) higgs particles, while the (anti-)electron consists of only electron (anti-)higgs particles!

5) Basic structure of the proton and electron has been based on combinations of binding and repulsion through elementary charge and elementary magnetic spin:

At higgs level opposite electrical charges and oppositely directed spins between a proton-higgs particle and a proton anti-higgs one are active only and similar for the electron ones. Annihilation cannot take place.

Inside any construction of higgs particles not any other physical force is active than these electric force and the magnetic spin one; **F1a 2014**. Those other physical and chemical forces are only generated by atoms together with speed of this atom in universe compared to the center C of the universe!

In this document it has been analyzed that the (anti)proton and the (anti)electrons are based on exactly the same kind of structure. These structures are based primarily on mutual attraction of electric charges (to consider as strong nuclear force) and secondary on attraction or repulsion of approximately a thousand times weaker magnetic spin force (to consider as weak nuclear force) between:

a) both the elementary higgs particles (to consider as strings) and
b) between the 'quarks'.
c) Ultimately this also applies to the relationship between the protons and the nuclear electrons in the nucleus.

With these considerations the author replaces the vague terms *strong nuclear forces* (= strong electric force) and the *weak nuclear force* (= weak magnetically force) into concretely known and existing physical forces (and bonds).

This makes the current terms *strong nuclear forces* and *weak nuclear forces* totally unnecessary. This confusing 'concepts' should disappear as soon as possible. The universe is based on a binary system of only two basic forces: a) electric force due to charges and b) magnetic ones due to spins!

* 5) THE CONSTRUCTION FROM HIGGS PARTICLES TO THE (ANTI-)PROTON AND THE (ANTI-)ELECTRON:

From the four elementary higgs particles displayed on higgs level in **figure 1c**, and finally 3D as spheres in the **figures 6a** and **6b**, the transition of (anti-)mass to (anti-)matter prepared and the structure is followed up to the (anti-)proton and (anti-)electron; the basic building blocks of:

a) all of the common elements or atoms of the periodic table (**document F1d**),

b) of all black hole atoms starting from beryllium (**document F1e**),

c) the anti-atom (only anti-hydrogen and anti helium? are known) and

d) the (anti) neutron. (One neutron consists of one proton plus one electron; the antineutron contains one anti-proton and one anti-electron.

Those four higgs particles can be understood as strings, and as (anti) mass carriers in conjunction with charge and spin. From now in short we call them higgs. The higgs which occur in the proton are called proton-higgs. The higgs in the electron are the electron-higgs.

Based on the four elementary higgs particles in the *relative calm steady state* the author distinguishes six levels in the step-wise build-up (*the min/max 1 principle*), and the route up to the (anti) proton and the electron or positron.

Table 5 -1: Pathway structure of atoms and of black hole atoms from higgs particles:
Six levels are elaborated in this chapter:

I) Lowest and first level: the four higgs particles of Uiterwijk Winkel.

II) Second level: the simplest constructions of higgs particles:
- proton-frankinos (neutrinos) and proton-double-frankinos;
- electron frankinos (other neutrinos) and electron-double-frankinos

These frankinos are majorana particles. ****)

III) Third level: multiple structures of higgs particles:
Formation of (anti-)proton half-photons and (anti-) electron half-photons. These are particles having an externally measurable mass, charge and spin. Half photons can hardly occur as free particles because they are very reactive and two of them form a photon immediately.

IV) Fourth level: the formation of (infrared) photons of the proton and (light) photons of the electron:
In the universe frankinos, double-frankinos and half-photons build up stepwise to photons and anti photons of the proton (infrared) or (anti) of the electron photons (light). These are the light or infrared photons of daily life and according to the author these are the biggest independent structures of pure higgs particle! Photons and anti-photons are also majorana particles without an externally measurable volume, mass, charge and spin. ***)
Photons with increasing frequency and energy manifest themselves as UV, X-rays and/or gamma photons depending on the quantity of kinetic energy and frequency! From the infrared photon can be distinguished with decreasing vibration frequency, radar and radio waves.

V) Fifth level: the formation of constructions of photons with already the spatial structure of the pre-(anti-)proton and pre- (anti-)electron:
Sooner or later in the universe photons and half photons of light and infrared react stepwise to buildings up to 13½ photons and anti-photons. This results in:
a) the pre-proton (made up of only infrared photons), and, similar, to
b) the pre-electron (made up of only light photons)

Now the author assumes that these are the biggest building blocks of infrared photons and of light photons. These structures consist here of 81 higgs particles and three groups of 27 each higgs particle or 3 pre-quarks. These constructions of 13½ photons and anti-photons already have the spatial structure of the (anti-)proton or (anti-)electron and consist basically of three quarks. These constructions with three quark have already the measurable physical characteristics of: a) (anti) mass, b) + or - charge, c) parallel or anti-parallel spin, and d) a spatial structure, *but these particles do not have a characteristic of matter nor that of antimatter*!

VI) Sixth level: Adding kinetic energy and the formation of the (anti-)proton and the (anti-)electron:
During the passage through the galaxies the 'equator speed' of the rotation of these structures with 13½ photons increased finally close to the speed of light. This results in so-called *rotor photons*. Passing these galaxies that speed of these constructions of 13½ photons increases gradually until finally $E = ½ mc^2$ to rotational energy has been added.
Thus, these rotor photons get a new physical characteristic, the one of *matter or antimatter* added in addition to existing and quantitatively measurable characteristics of (anti) mass, charge and spin. *****)
This increase of the angular speed of said rotor (photons 13 ½) eventually results in the formation of only the (anti-)proton or of the (anti-)electron which are made up each of three quarks of each 27 higgs particles.

****) Majorana particles are made up of an equivalent number of ordinary higgs particles and anti-higgs particles. So the net value of mass, electric charge, and magnetic spin and internal kinetic energy will be zero, while those properties within the majorana particle indeed and still be 100% unchanged. Only the frequency of vibration of the majorana particles as a whole can be measured, which makes the photons measurable. The internal particles themselves are not visible at all!

*****) Such under construction protons and electrons as high energy particles are found in cosmic rays. This increase of the angular speed of said rotor (13½) photons eventually results in the formation of only the (anti-) proton or of the (anti) electron which are each made up of three quarks of each 27 higgs particles.

5.1 ad I) THE FOUR BASIC HIGGS PARTICLES:

The Standard Higgs Model of Uiterwijk Winkel describes the four higgs particles in the relative calm state of 99.99% of the higgs particle in the universe continuously. They cannot be investigated in particle accelerators because these four standard particles then get directly from the relative state of rest. These four higgs particles are the result of two energy-free and totally inert basic shapes which are shown as elementary rings with a small opening; see **figure 2**.

Under all conditions (anti-)kinetic energy is always associated 100%with these rings. This intrinsic kinetic energy cannot be liberated.

Because of this kinetic energy this basis rotation goes clockwise or rotation anticlockwise around their longitudinal axis and also around their two transversal axes.

On higgs level are up to three orthogonal rotations only! These rotation movements clap these elementary rings initially into spirals / strings with a turn (anti-)clockwise.

This produces four mono coils each with their own twists inside three spirals. **Figure 1c** considers the four strings in the relative calm state with only one fixed rotation around the longitudinal axis from three positions: top view, side view and obliquely from above. See also the **figures 3a** and **3b**.

In addition, these coils rotate in the second place much more slowly around their transversal axes both of which ultimately 3D higgs spheres arise as shown in **figure 6a** and **6b**.

-) No singularity possible:

Kinetic energy provides the spatial form and the minimum dimensions of all higgs particles. Universe wide kinetic energy prevents the further reduction of spatial higgs particles to the state of a singularity and to particles as shown in **figure 2**! A singularity is only possible in a universe without any form of rotational energy (the *absolute Annemie* state)!

-) Universe wide rotation causes proton-higgs particle and electron one with the same basic form:

In the relative calm state at higgs level for three rotations a fixed amount of kinetic energy is present universe wide. Thereby universe wide rotate all proton-higgs particle with exactly constant speeds around their longitudinal axis and equal angular velocities around their two transversal axes; **figure 6a** and **6b**. This applies correspondingly also to both electron-higgs much smaller particles. Therefore all the higgs particles result in a same (anti-)form universe wide! In all respects, there are mirrored particles.

0.01% of particles in an energetic extreme situation arise temporarily in collisions in particle accelerators and nuclear (fusion) reactions and at that time they possess more kinetic energy and sometimes less kinetic energy than in the relative calm state. Higgs particles that generate consistently temporarily more and sometimes less mass, charge and spin than the 99.99% of particles that find themselves energetically in the permanent relative calm situation!

These particles have a correspondingly spiral-like shape which is more or less stretched. See **figures 3c** and **3d**.

-) Rotation also causes distortions which higgs particles resist through mass, charge and spin:

The maximum possible of three rotations by (anti) kinetic energy causes any distortion at all higgs particles and thus result in a maximum of three types of distortions against which these higgs particles resist. In protest against these three distortions these higgs spirals only generate the basic characteristics: a) mass or anti-mass, b) a positive or negative charge, c) a magnetic spin

These four elementary higgs particles are not yet generating: 1) matter nor antimatter, 2) or any other physical or chemical force than electric charge and magnetic spin and therefore cannot generate gravity! Mass has absolutely not any connection with gravity!

Electrical forces and magnetic forces:

All in this chapter mentioned particles are only sensitive to electrical forces and magnetic ones. So for example not for gravity! Massa has absolutely nothing to do with gravity!

1) Have some facts about higgs:

1) $m_p = 1836\ m_e$

2) The rotation longitudinal axes of the two elementary proton-higgs strings are perpendicular to those of the elementary electron ones. Both particles align their speeds of rotation through their surrounding the electric and magnetic fields with each other always in such a way that always all the higgs particles generate an equal quantity of charge (€)which are different only + or - sign and spin ($); see **figure 5**.

3) The two proton-higgs are each other's antiparticle. These two ones are super symmetrically to each other. The same applies to the two electron-higgs.

4) The ordinary higgs and the anti one of the proton cannot annihilate together! This also applies to the two electron-higgs particles. Mass and antimass cannot be transferred into energy according to $E = mc^2$! Annihilation can only occur if there is an equivalent of *matter* and anti*matter*!

5) All the higgs only have the characteristic of: a) spatial spherical shape, b) kinetic energy, c) (anti) mass, d) electric charge, e) magnetic spin and f) elementary time and do not generate gravity or any physical or chemical force! The higgs strings have no characteristic of matter and antimatter!

6) The proton is made up of one more positively charged ordinary higgs particle than negative ones, while the *normal* electron is composed of one negatively charged anti-higgs strings more than positively charged ones!
   All these charges are ± € while € = the charge of the proton.

7) At higgs level strings only rotate in the relative calm state around their three axes of rotation and have no linear motion there! At this level itself only a 3D spatial rotation *within a zero-dimensional space* applies! They also follow the movements of the atom.

8) In particle accelerators higgs particles get a linear movement as well. Only a 3D spatial rotation within a zero-dimensional space applies! In particle accelerators, the measurement results of higgs particles are representative only for extreme energy conditions (0.01% of all higgs particles). They are not representative or useful for describing the higgs in the relative calm state in which 99.99% of them in their larger structures such as atoms, molecules and atoms in black hole being permanently.

9) The 11 dimensions of the string theory are the result of the 9 to 11 movements of the earth in the universe. Those speeds have quantitative effects on 9 to 11 dimensional vector construction of physical and chemical forces at all atoms and molecules of the measuring equipment used. The more accurate the measurement, the clearer the results of velocities of the earth appears in the universe.

10) However the 11 dimensions of actual string theory act at the atomic level but not at higgs level!

11) Higgs particles are the smallest masses. The minimal rotation space taken by higgs particles cannot be absolutely zero, so no real singularity! The rotational energy prevents the occurrence of a real singularity. The Big Bang cannot possibly be started from a singularity, so it started from a black hole. See **document G6**)

12) The two different proton-higgs particles attract each other without danger of annihilation. With only those proton-higgs particles larger structures can be built. The same applies for the electron-higgs. Between the proton-higgs strings and electron ones are not possible stable structures because the sign of charge or spin does not match well!

13) Measured time differences of exactly identical atomic clocks on Earth and ones in orbit around the earth arise by a speed difference of about 11 km / s between the two clocks relative to the center C of the universe. These differences in speed result in both clocks in small measurable differences in all the physical and chemical forces and their bonds with all the molecules in the atomic clock in orbit around the Earth relative to the same molecules of the clock on earth.

14) Indeed, in an orbit those molecules move with an additional speed of about 11 km/s relative to the center C of the universe.
   For all molecules present in that clock revolving around the earth all physical and chemical forces and their bonds slightly increase quantitatively and thereby change the forces and bonding in crystals.
   Thereby changing their vibrational frequency and the time measured by these clocks which fixed time differences between the clock around the earth "and the clock on earth.

15) The time differences 'measured' with the atomic clocks are not really present! This *apparent* difference in time is very useful for GPS systems!

16) This difference in 'measured' time, however, has absolutely not any connection with the deformation of space and time as mentioned in the theory of relativity!

17) The two proton-higgs attract each other without danger of annihilation. With that higgs particles so larger structures of proton-higgs and separate electron-higgs can be build. Proton-higgs and electron ones cannot be combined, because mutually stable structures are impossible due to the sign of charge or spin which do not match well!

5.2 ad IIa) THE CONSTRUCTION OF INFRARED FRANKINOS AND LIGHT ONES
(Frankinos are comparable to neutrinos.)

1)   Majorana particles or simply majoranas are made up of a number of ordinary particles, and an equal number of anti-particles of the same kind. Their masses and anti masses associated with rotational energy, and anti-rotational one compensate each other, as are the electric charges. Also, the spins cancel each other out by standing parallel and anti-parallel. Those properties inside the majorana indeed and still 100% unchanged. Only the frequency of vibration of the majorana, as a whole can be measured, such as by photons. The particles themselves cannot be made visible!
The opposite charges generate electrical dipole action while causing the ↑↓ -spins quadrupole forces. This offers the possibility that majoranas can bind together. Then octupoles and higher come out. All those ... poles are multipoles. They always create attraction. This force is reminiscent of the co- and adhesion between the molecules as a result of multi-polar forces.

2)   Through these multipoles all the majoranas are diffracted in very small degree in the universe which makes to move these particles within the universe spherical shell for always and ever. So these particles cannot escape from the universe spherical shell inwards or outwards. Therefore the universe spherical shell is a 100% closed system for majoranas, their mass, their matter (if they have one) and energy.

3)   Both super symmetric proton-higgs attract each other through both charge and magnetic spin and produce one proton-frankino (named after Franklin Roos!). Depending on the final direction of rotation around the longitudinal axis there is also an ordinary proton-frankino and an anti one. See **figure 8**.
Frankinos are majoranas. They are similar to (anti-) neutrinos and are never observed. At most very occasionally they leave traces during collisions with nuclei. The entanglement as shown in **figures 8a** and **8b** is not possible because higgs rotate around their three axes which results in globules which have to be displayed separately.

4)   The frankinos have been shown in **figures 8a-1, 8a-2** and **8b-1, 8b-2**. Each globule has its own three rotations which are not shown. The rotations indicated in these figures apply to the frankino as a whole. The constructions of frankinos in **figures 8a-2** and **8b-2** is not possible because the present position of the main axis from this position no larger particles are to be built.

5)   In **figures 8a** and **8b-1** it can be done and those ones may have a sense of reality for one of the numbers 1 or 2 and one of the numbers 3 or 4. From this frankinos larger structures such as (anti-) double-frankinos can be built and eventually the (anti-) photons.

6)   The proton-frankino and the anti one have been based on the opposite rotations of the frankino as a whole. The same applies to the both electron frankinos. Overall, only four single frankinos are possible shown in **Table 5-3**.

7)   Frankinos are the smallest possible constructions of higgs particles. They are so small that they cross through atoms and possibly they pierce the earth completely. Because the recorded but not measurable (anti) mass frankino are held at speeds in the universe up to the speed of light.

8)   Frankinos have both a linear velocity (speed of light) and again three own angular velocities around the longitudinal axis and the two transverse axes on top of the three intrinsic rotations of the higgs to face with a total of six possible movements. The six movements (three linear and three angular velocities) above higgs level express themselves in a vibrational frequency that is hard to measure with neutrinos.

9)   Inside single frankinos the existing (anti) kinetic energy, (anti)mass, positive and negative charge and spin parallel and antiparallel spin cancel each other completely. The outside of the proton-frankino does not show any measurable mass, charge, spin, time or gravity. The same applies to the both electron frankinos. All frankinos are majorana particles with weak dipole and quadrupole forces!

10)   Frankinos have both a linear velocity (speed of light) and again three intrinsic angular velocities around the longitudinal axis and the two transverse axes. Of course as well we meet again the three elementary rotations of the higgs particle with a total of six possible movements. The six movements (three linear and three angular velocities) above higgs level express themselves in a vibrational frequency hardly to determine.

11)   Inside the higgs particle frankino keep both their original three rotational movements and direction. The frankino as one whole gets three own rotations along also.

12) The dipole and quadrupole forces of the frankinos make it possible they attract mutually.
13) Due to the recorded, but no measurable mass, all frankinos move slower than the speed of light.
14) The dipole and quadrupole features of frankinos result in the possibility of building larger structures in the form of double-frankinos hands and up to a maximum of the photon and antiphoton. Those constructions remain as majorana particles characterized by an equivalent number of higgs particles and anti-higgs particles.
15) Because of the dipole and quadrupole features of frankinos all of their orbits in space can be bent in very small degree. That makes these particles to move still for 100% continue within the universe spherical shell, and so these particles cannot escape from the universe spherical shell into the empty sphere or outwards. Therefore the universe spherical shell is a 100% closed system for frankinos and so for their mass and energy.

5.2.1 Ad IIb) THE DOUBLE-FRANKINO:
1) Both proton-frankinos **figure 8a-1** pull each other through their electric dipole and magnetic quadrupole. They can form together a double-frankino. This also applies to two electron frankinos; see **figure 8b-1**. Such double-frankinos are also majorana particles and have quadrupoles and octupoles with weak forces.
2) The possible proton double-frankino is shown in **figure 8c-1, 2**, and **8c-8c-3** which should be noted that **figure 8c-1** is equivalent to **figure 8c-2**.
3) The rotations in **figure 8c-3** are less suitable to grow to proton photons; only the remaining four double-frankinos in **figure 8c-1** and there is only one proton double- frankino and one double-antifrankino.
4) The potential electron double-frankinos are shown in **figure 8d-1**, **8d-2** and **8d-3** being noted that **figure 8d-1** is equivalent to **figure 8D-2**. The rotations in **figure 8d-3** are less suitable to grow to photons of the electron; only the remaining four double-frankino in **figure 8d-1** and there is only one proton double-frankino and one double anti-frankino.
5) In total only four double-frankinos are possible; two of the proton and two of the electron.
6) Within the double-frankinos the four higgs particles and two frankinos the main axes of rotation kept their original direction as shown in **figures 6a** and **6b**, and in **figures 1** and **8a-1** and **8b-1**. Overall the double-frankino gets its own 3D rotation. A total of at least 9 kinds of internal rotational movements are possible.
7) All double-frankinos have only on the outside a perceivable speed and an associated kinetic energy and frequency of vibration, and these do not fly faster than light. These particles are not visible and very occasional.
8) Double-frankinos have both a linear velocity (speed of light) and three angular. The three movements are reflected in a vibration frequency that is almost impossible to determine. The **figure 8c-1** and **figure 8d-1** are realistic. From this double-frankinos are the even larger structures such as to form the photon.
9) With double-frankinos can be built (obeying *the min/max 1 principle*) bigger structures in the form of a maximum of the photon and anti-photon of infrared (the proton), and that of light (the electron).
10) The author expects the proton-frankinos and the electron ones can move through the universe at most a few tens of millions of years and in that period they are all transformed into double-frankinos and ultimately to infrared photons and light ones; see **figure 10a** and **10b**.

5.3 Ad III) PHOTONS HALF OF THE STRUCTURE OF LIGHT AND INFRARED:
With three proton-higgs or the electron ones structures are also possible, of three higgs in the form of half-photons and of half-anti-photons of infrared (proton) or of light (the electron). Between the proton-higgs and the electron ones are not possible mutually stable linkages. Those trios of similar higgs consist of either two ordinary higgs or one anti-higgs or just inversed; see **figure 9a and 9b**.
Two of the three higgs cancel mutually each measurable mass, charge and spin completely. These half-(anti-)photons on the outer side the same physical characteristics and quantitative values of one of the outer higgs. These trios of higgs particles or photons are no majoranas.

-) Half proton-photons:
The similarly charged particles higgs at the end of the trio repel each other and are held together by the oppositely charged higgs in the middle of these trios. The mutual repulsion of the two outer ensures that these trios are always in a straight line somewhat flexible. The same applies to the two half-electron-photons.

In **figures 9a-1, 9a-2, 9a-3** and **9a-4**, the various half- proton-photons and half- proton-anti-photons are shown with their different axes of rotation. This yields a total of 16 different possibilities for both the semi- proton-photons (infrared) as those for the half-electron-photons (light).

In **figures 9a-3** and **9a-4**, the main axes of rotation is less suitable for growth to photons. These half photons can be found in the possible fragmentations in accelerators where they are in the extreme situation and then have to respond by ordinary and anti-photons; **chapter 5.4**.

For the relative calm state only two of the eight combinations can be expected in **figure 9a-1** and **9a-2**. The author believes that the combinations of numbers 3, 4, 5 and 6 are possible. Only two cases are shown in **figure 9a-5**.

-) Half electron-(anti-)photons:
The same applies to the half-electron-(anti-)photons
In chemical and biochemical reactions half photons cannot be formed.

In the end, only two half photons as possible of both the proton (infra-red) as that of the electron (light) into photons in the state of UV light, X-ray and gamma radiation. Because of the orientation of the spins, the rotations of these trios on their two transverse axes are oppositely directed.
Figure 9a-5 shows the half-proton-(anti-)photon believed to be possible ultimately; **figure 9b-5** shows the two half-electron-(anti-)photons.

~   Half photons occur occasionally and especially under extreme conditions such as particle accelerators and during nuclear (fusion) reactions but also they can occur in the universe. Half-(anti-)photons are also temporarily released during annihilation.
~   Both half- proton-photons, **figure 9a-5**, are each other's counter particles however they cannot annihilate with each other. This is also true for both half-photons of the electron; **figure 9b-5**. A half-photon and its counter particle half-anti-photon pair directly to become a single (anti-)photon, a majorana particle.
~   Half photons are very reactive and are difficult to detect.

5.4 ad IV) THE CONSTRUCTION OF PHOTONS:
Photons are majoranas composed of two half-photons not being majoranas.
The author now presumes that photons are composed of at least three normal higgs and three anti-ones so that all the photons would contain at least 6 higgs. Photons can also consist of 10, 14, 18, … higgs; see **figures 12a - 12d**. All individual proton-photons and electron photons are in any case made up of the same maximum number of higgs particles.

Photons can be formed from a) frankinos or b) half-photons:

Ad a) Formation of photons from frankinos:
(Anti-)frankinos are electric dipoles and magnetic quadrupoles.
Three ordinary proton-frankinos and three anti-ones together make one proton-(anti-)photon (depending on the direction of the net rotation). During billions of years this process happens while frankinos and double-frankinos travel in the universe spherical shell.
The production of photons can be a lengthy process. Forming bonds can only happen with parallel moving frankino and double-frankino, as neighbors in the universe spherical shell. During passage through galaxies and along stars the orbits of frankino and double-frankinos are always deflected new opportunities arise to link. That takes time and that is plentiful in the universe cycle.
If at first two frankinos bind to each other may be only a double-frankino is created that further can react until the proton-(anti-)photon eventually. The same applies to the electron-one.
During the stepwise growth process the majorana structure (**document F1b**) always remains maintained and always *the min/max 1 principle* of exactly only one step at the same time is fulfilled.

Only when a third frankino is annealed the construction of up to six higgs particles arises and thus the proton-(anti-)photon is born. Again the same applies to the electron-ones. Such configurations are shown in **figure 10a and 10b**.
The indirect and slow formation of photons from three frankinos is less credible than the next screenplay because of *the min/max 1 principle of one step at a time*.

Ad b) Formation of photons from half photons:
When a half-proton-photon and half-proton-anti-photon attract mutually and react then immediately a proton-(anti-)photon arises. Being anti depends on the direction of the net rotation.
Of course the same applies to the electron-ones.

Only majoranas are involved. Thereby photons seem to be pure energy very deceptively and seemingly! The cosmic lenses prove the presence of the multipolar forces. Note that the author does *not* call them *gravitational* lenses, because gravity does not play any role. (So bending of space is completely superfluous.)

Depending on the final direction of rotation counter-clockwise or a clockwise direction, there is a photon or an anti-photon. See **figure 10a and 10b** with the high-speed rotation about the longitudinal axis vertical.

Overall finally the photons formed have the same structure and properties. Only their rotations and frequencies of vibration, wavelength and color can be different. See **figures 11a, 11b, 11c and 11d**.

A better look at photons

1) Overall only four photons are possible: two proton(anti-)photons (infrared) and two electron-(anti-)-ones (light) with different vibrational energy (or wavelength). The final direction of the angular velocity of the formed photon around the longitudinal axis determines whether there is the formation of an ordinary photon or an anti-one.

2) Within author's cycle of the universe the universe spherical shell is a completely closed system for all particles mentioned in this chapter.

3) In the course of the time all frankinos and double-frankinos turn for up to 100% into (anti) photons. (Later all photons turn into protons and electrons as we will see.)

4) Photons are made up of a maximum number of higgs particles; probably only six ones; see **figures 11a - 11d** and **figures 12 a - 12d**

5) If rotations around the longitudinal axis are possible only the configurations shown in **figure 10a** and **10b**.

6) Through absorption of photons they can form forms clusters which are not visible. They only 'show' themselves through light, color and temperature.

7) In the universe photons are gradually broken by density differences in the thin gases. The deflection of photons is estimated to average only 1 degree per ten to forty thousand years! This deflection is very small but is plenty big to result that we on Earth receive completely distorted images of the deep sky where all radiation is underway through various curved orbits during billions of years before it is collected on Earth, often through different paths which causes time differences of sometimes many years!

8) Due to extremely weak dipole forces and quadrupole ones all photons are deflected in very small extent in the universe. However these forces take care that all photons stay for 100% within the universe spherical shell. So this universe is a closed system for mass, matter and energy. Not anything can escape!

9) That is why always we observe the universe only through the 'lens' of the universe spherical shell.

10) Multipoles as photons can attach themselves to protons and to electrons present in atoms and molecules. (Absorption.) Photons can be freed again; **figure 17**. This occurs in all kind of (bio-)chemical happenings and physical ones where light is emitted!

11) During the collapse of ordinary atoms to black hole ones all absorbed photons are 'squeezed out' and removed from the atom. Therefore black hole atoms have standard an extremely low temperature of about 2.7 kelvin. See **document F1e and figures 18e - 18n**.

12) Because of the present but not measurable mass all photons are held up to light speed. See **document F1a 2014**

Ad 5.5 V) THE CONSTRUCTION OF MULTIPLE STRUCTURES OF PHOTON:

Studies with particle accelerators give us the idea that the proton and antiproton are to be regarded as matter and antimatter, and that both are made up of three quarks of which two are identical, and the third is different in terms of charge and spin.

In the framework of the universe cycle all majoranas and all the cosmic particle radiation sent by stars, must be recaptured and be returned into pre-forms of the proton and the ones of the electron.

Those pre-forms must result again in the formation of (anti-)matter by adding $E = \frac{1}{2} mc^2$ to rotational energy. This can be done only in the form of the (anti-)proton and of the (anti-)electron. Ultimately in the universe solely ordinary protons (matter) and regular electrons being antimatter is formed.

These two building blocks combined give the hydrogen atoms which can be converted by fusion to all the ordinary atoms/elements of the periodic table.

In the meantime somehow the property of matter or antimatter must be obtained by adding $E = \frac{1}{2} mc^2$ to the rotational energy. In the run-up to the formation of such a proton and antiproton structures must be formed by photons into three almost equal parts (three pre-quarks) which thereby may not fall apart into majoranas.

According to the author in the first instance thereto is met with constructions of at least 4½ photons as shown in the **figures 13a** and **13b**. This is currently the maximum possible believed 2 D structures of photons and half-photons.

These constructs of 4½ photon **figure 13a** and **13b** form 1/3 part of the pre-proton and pre-electron.

In this stage there is not any mention of matter or antimatter!

5.5.1. PRE-FORMS OF THE (ANTI-)PROTON AND (ANTI-)ELECTRON:

When three such 4½ constructions of photons and anti-photons are combined into a single unit then a final assembly is creates containing 81 higgs. In thought it can be divided into three parts of each 27 higgs of which two parts are identical, and one with an opposite charge and spin. See **figures 14a - 14d.**

Such structures have a clear preference for one direction of rotation around the originally longitudinal axis and in such a way that only the pre-forms of protons and that of electrons occur.

-) The three pre-quarks:

As explained before, constructions of 13½ photons can be divided into three equal parts being pre-quarks with 27 higgs particles each. Three pre-quarks are equal and universal 3D conformed.

-) The pre-(anti-)proton and pre-(anti)electron:

Such a construction of 13½ photons consists of up to 81 higgs particles and has the shape of a rod that in particular rotates about its longitudinal axis with a much lesser degree rotations about the two transversal axes. In practice these constructions of proton-photons (infrared) and electron-ones (light) look like small spheres with an obvious preference for rotation in one direction about the longitudinal axis. In principle in the construction the rotation of electron-photons (light) is opposite to that of the two structures with proton-photons (infrared).

The construction of such structures with 13½ photons (one pre-proton or one pre-electron), maximal of possible forms, is effected during the billions of years of traveling through the universe spherical shell during passage through and around galaxies and collisions between parallel moving photons being majoranas.

In accordance with *the min/max 1 principle* of exactly one change at any time that building is *incrementally* via the charged edges of (anti-)photons with one half-photon.

-) Event horizons

~ Probably proton-photons (infrared) can float around the universe spherical shell only about 18 billion years before they returned into protons. This corresponds to the range of the Planck sight infrared satellite.

~ Probably only up to 13.8 to 14.0 billion years the electron-photons (light) can move in the universe spherical shell before they are transformed back into electrons.

~ For cosmic particles the event horizon is estimated at up to 8-10 billion light years. Beyond that we cannot look back in time, universe clock time. See **figures 4a, 4b** and **5 document E3-1** www.uiterwijkwinkel.eu .

The universe started around 40-45 billion years ago with a super cold Little Bang; see **document G6, G7 and G8**.

-) A maximum size and shape:

1) Provisionally given the size of protons such constructions of 13½ photons cannot grow beyond up to 81 higgs particles. Analogously the same applies for the build-up of electrons!

2) In the course of billions of years all frankinos, double-frankinos and photons transform consistently *stepwise* to such constructions of higgs particles and 81 to the three pre-quarks of the proton or electron.

3) In the course of billions of years all (anti-)frankinos, double-(anti-)frankinos, (anti-)photons grow stepwise (*the min/max 1 principle of exactly one happening at a time*) to structures with 4½ photons and ultimately to constructions with 13½ photons. These are thirteen majoranas and a half-photon. Ultimately that half-photon determines observable and measurable (anti-)mass, charge and spin!

4) The basic constructions of the proton and the electron contain much more mass, charge, magnetic spin and rotational energy than can be measured on the outside of the particle.

5) These basic structures with 13½ photons, together 81 higgs, consists of three groups each with 27 higgs of which the two outer are equal and the third middle group has an opposing mass, charge and spin. These are the three quarks in the making and still they have no characteristic of matter or antimatter.

6) Due to their net charge and spin those structures as a whole move during passage of stars and galaxies through electric fields and magnetic ones accelerating their rotation around their longitudinal axis up to the speed of light.

7) For the time being the structures with proton-photons (infrared) rotate relative to the center C of the universe clockwise, whereas the structures with electron-photons (light) rotate anticlockwise.

8) In structures with proton-photons (infrared) resulting rotation with speed of light clockwise eventually rotor photons occur and protons in ordinary matter.
High rotation speeds of the structures with electron-photons (light) are rotor-photons. They move anticlockwise and ultimately they result in usual electrons which are, in fact, in comparison with protons antimatter!

9) Protons and electrons cannot annihilate together!

10) Constructions of higgs have only mass, charge and spin and still no matter or antimatter. For this, these structures at first is needed $E = \frac{1}{2} mc^2$ for rotational energy before the existence of the (anti) proton and the (anti-) electron.

5.6 ad VI) ROTOR-PHOTONS WITH FEATURE (ANTI) MATTER; (ANTI) PROTON AND (ANTI) ELECTRON:

All structures with 13½ photons remain moving within the ever slowed expanding universe spherical shell. These constructions of photons pass many of the 4 to 20 billion galaxies existing each of 100 to 300 billion stars. Those stars are surrounded by vast electric and magnetic fields which attract the multipoles of these constructions of photons!
The structures of proton-photons are speeding counterclockwise to rotate their longitudinal axis. The constructions of electric photons rotate accelerated and clockwise around their longitudinal axis.

-) With $E = \frac{1}{2} mc^2$ the characteristic of (anti-)matter arrives:

That increase of the rotational velocity goes on until the maximum attainable speed is reached. Then these constructions of light photons and infrared ones transform into rotor photons!
The maximum is reached when the rotational energy becomes $E = \frac{1}{2} mc^2$. This kinetic energy gives the rotor-photons the characteristic of matter or antimatter next to the mass, charge and spin.

At the end of the building process in the universe spherical shell almost exclusively ordinary protons are originated net; **figure 15a** also arise almost exclusively ordinary electrons; as shown in **figure 15b**. These results in a universe which is virtually 100% based on only ordinary protons, being matter, and on ordinary electrons, being anti-matter. The proton rotates as ordinary matter clockwise as provisional starting; the electron rotates counterclockwise as antimatter.

With time all (double-)frankinos and (half-)photons (induced in stars by nuclear fusion) transform to such rotor-photons with 81 higgs, until a proton or an electron is born. This build-up process results in the formation of only a fraction of anti-protons and positrons which annihilate on the move. Their photons are subsequently converted into protons and electrons.

These structures of protons and electrons are all built of three quarks; each consisting of 27 tentative higgs. The formation of protons and electrons takes place in a mutual cohesion.

Four distinct and possible rotor photons are possible.
Looking at the external rotational energy, we get
$E = + \frac{1}{2} m_p c^2$ for the proton,
$E = - \frac{1}{2} m_e c^2$ for the electron, being in fact antimatter!,

$E = - \frac{1}{2} m_p c^2$ for the antiproton (antimatter) and
$E = + \frac{1}{2} m_e c^2$ for the positron, being normal matter.

Eventually this build-up process results exclusively in the forming of the proton and the electron, and their anti-particles with 100% clear preference for the formation of ordinary of ordinary protons and electrons, which, in fact, as anti matter are to be designated. These are the protons and the electrons which are present in atoms.

The (anti) proton and (anti-) electron are all made of three quarks that are made up of 27 higgs particles that have a measurable net mass, charge and spin.
With these four basic building blocks are all atoms, build all black hole atoms and anti-atoms.
To date, science has the electron has not yet been able to dissect his quarks; let alone in its elemental higgs.

-) Only matter and antimatter can annihilate:

Unlike mass and anti-mass, equivalent particles of matter and antimatter can annihilate now. See **figure 15e**.
When they do it, the rotation energy of both, being $2 \times \frac{1}{2} mc^2 = mc^2$, vanish completely. This energy escapes in

the emitted photons. When annihilation occurs in this structure of matter & antimatter 13 + 13 + 1 = 27 photons again all particles are majoranas, so real particles which do not show measurable mass, charge or spin on the outside!

Apparent and very deceptive during annihilation it seems all mass is completely converted into energy. So this concept is completely wrong! That mass remains fully intact and is not converted into energy. The author knows that during the annihilation the photons are emitted one by one and therefore complies with *the min/max 1 principle*!

Table 5 – 2a

Proton oriented particles (infrared)	Net internal rotation energy	(anti) matter	net mass in higgs	net charge in €	net spin in $	'time'	rotor-photons	majo-rana
proton-higgs	common	0	+1	+1	↑	+1	0	no
anti-proton-higgs	anti	0	−1	−1	↓	−1	0	no
proton-frankino	0	0	0	0	0	0	0	yes
proton-anti-frankino	0	0	0	0	0	0	0	yes
proton-double-frankino	0	0	0	0	0	0	0	yes
proton-anti-double-frankino	0	0	0	0	0	0	0	yes
half- proton-photon	0	0	+1	+1	↑	+1	0	no
half- proton-anti-photon	0	0	−1	−1	↓	−1	0	no
proton-photon	0	0	0	0	↓↑	0	0	yes
proton-anti-photon	0	0	0	0	↓↑	0	0	yes
4½-proton-photon	0	0	+1	+1	↑	+1	0	no
4½-proton-anti-photon	0	0	−1	−1	↓	−1	0	no
proton-without-matter	0	0	+1	+1	↑	+1	0	no
antiproton-without-matter	0	0	−1	−1	↓	−1	0	no
proton	0	common	+1	+1	↑	0	13½	no
anti-proton	0	anti	−1	−1	↓	0	13½	no

Table 5 – 2b

Electron oriented particles (light)	net internal rotation energy	(anti) matter	net mass in higgs	net charge in €	net spin in $	'time'	rotor-photons	majo-rana
electron-higgs	anti	0	−1	−1	↑	−1	0	no
anti-electron-higgs	common	0	+1	+1	↓	+1	0	no
electron-anti-frankino	0	0	0	0	0	0	0	yes
electron-frankino	0	0	0	0	0	0	0	yes
electron-anti-double-frankino	0	0	0	0	0	0	0	yes
electron-double-frankino	0	0	0	0	0	0	0	yes
half- electron-photon	0	0	−1	−1	↑	−1	0	no
half- electron-anti-photon	0	0	+1	+1	↓	+1	0	no
electron-anti-photon	0	0	0	0	↓↑	0	0	yes
electron-photon	0	0	0	0	↓↑	0	0	yes
4½-electron-photon	0	0	−1	−1	↑	−1	0	no
4½-elekron-anti-photon	0	0	+1	+1	↓	+1	0	no
electron-without-matter	0	0	−1	−1	↑	−1	0	no
anti-electron-without-matter	0	0	+1	+1	↓	+1	0	no
electron	0	anti	−1	−1	↑	0	13½	no
anti-electron	0	common	+1	+1	↓	0	13½	no

5.7 THE MIN/MAX 1 PRINCIPLE OF EXACTLY ONE HAPPENING AT A TIME:
In this document the construction of the proton and electron was indicated step by step. That building is fully compliant with the minimum derived by the author and a maximum of one principle:
a) *only one state exist at a time* and
b) *only one change at a time*.
This extremely basic principle has not been named as such explicit in science. This principle is described in **document F1f**. Briefly, this principle:

-a) At any time any particle is exactly in one state!
All elementary higgs, quarks, protons, electrons, atoms, molecules and black hole atoms, (**document F1e**) in the universe are at any time exactly in only one energy state.
 In **document F1f** are distinguished 1050 different kinds of states, and every elementary, quark, proton/electron, atom and molecule as particle is therefore located at any point of time in only one of those of 1050 states!

-b) At any time exactly only one change from that state can occur!
On an elementary particles, quark, proton, electron, atoms, molecules, never mind, all kinds of change of (nuclear) physical, (bio-) chemical energy can occur, but at any moment on any given particle only exactly one change can happen.

Consequences of this principle:
So any (nuclear) physics process and any (bio-)chemical process can be analyzed in single increments or steps without exception. All these processes are thus decomposed into a series of predictable simple steps.
That *the min/max 1 principle of exactly one happening at a time* is universal!

That analyze into simple steps is not possible in Einstein's usual explanation of $E = mc^2$. See **document F1f** or the much older frames 5 and 6 of **document B1.** www.uiterwijkwinkel.eu

6) DISCUSSION:

1) Up to the present (2014) the sciences have failed to develop a clear vision of:

    a) how within the frameworks of the theories of relativity and the Big Bang incrementally through the basic min/max 1 principle of exactly one step at a time mass is converted into photon-energy and how conversely mass gradually returns from energy,

    b) how then from mass incrementally over the min/max 1 principle, the (anti) proton, the (anti)electron and the (anti)neutron are formed back and then the hydrogen atom can be formed,

    c) how from hydrogen through nuclear fusion stepwise to build up elements and isotopes of the periodic table/system as shown in the table of isotopes Wikipedia.

2) Based on the theory of relativity to the present (2015), no one has managed to specify exactly or to make plausible:

-- how mass incrementally according to $E = mc^2$ is converted into (kinetic) energy or into photons or

-- how to transform back that photon energy incrementally into (anti)matter;

-- how eventually this (anti)matter incrementally returns as protons, electrons and neutrons and their anti parts.

In science that step conversion and full support is missing!

3) The conversion by $E = mc^2$ is not substantiated incrementally and always assumed to be true undoubtedly! Einstein's famous formula $E = mc^2$ does not meet the min/max 1 principle of Uiterwijk Winkel!

4) The foundation of the science in the year 2014 exposes serious gaps which the author seeks to fill in with the **documents F1a 2014 F1b, F1c, F1d, F1e, F1f** and **documents G6, G7** and **G8**.

5) From the current Standard Model with 3 levels and about 20 elementary particles nobody in science succeeded to bring back from the mentioned particles into (anti)proton, (anti)electron or (anti)neutron!

6) This same problem is also reflected in the Big Bang theory where the first 380,000 years after the Big Bang are still not clearly completed sixty years later in our history. The universe is in those 380,000 years completely dark and opaque! Neither one has managed to find a conclusive explanation know for the period prior to the Big Bang.

7) The author fills that periods completely through the universe cycle; **document G7 (text)** and **document G8 (figures).**

8) In an energy-neutral manner the universe goes through a cycle that consists of 29 steps and in a time of seizure, now estimated, between 2 to 3×10^{12} years. This universe cycle fully complies with the min/max 1 principle and therefore is to model mathematically. The author needs the help of the scientists with this task. Around the end of 2015/beginning 2016 the universe and its cycle can be filled quantitatively completely. This model can only succeed with the cooperation of ESA, NASA, CERN, NWO (Dutch), Royal Academies of Science, and the universities and their institutes.

9) In the context of the universe cycle all forms of cosmic radiation must be recaptured and recycled to: a) protons and electrons, b) hydrogen c) the elements of the periodic table, and d) black hole atoms and are thus included in one of the central black holes that are present in the center of all galaxies within the universe spherical shell. In the context of the universe cycle the author himself was forced to find solutions to these problems that are shown in the in **documents F1a 2014, F1b, F1c, F1d, F1e and F1f** connected to each other. See www.uiterwijkwinkel.eu .

10) For the relative calm steady state the author derived that his higgs Standard Model consists of only 4 strings; two higgs strings for the proton and two higgs strings for the electron. Higgs strings that are two to two super symmetric. See the higgs standard model of Uiterwijk Winkel in **document F1a 2014.** The particles produced in particle accelerators lost their super symmetry completely.

11) This **document F1c** the author first elaborated a plausible route from the higgs particle to the (anti) proton and the (anti-) electron with the attendant features of (anti)matter and he shows how these basic building blocks of the atoms have come into being step by step. This solution fits well within the universe cycle theory as in the Big Bang one.

12) In the **document F1d** the build-up of hydrogen and the elements / isotopes of the periodic system have been developed.

13) In **document F1e** the transition from ordinary atoms into black hole atoms in black holes has been described. Those documents also apply to the first 380,000 years after the Big Bang to shape a clearer interpretation.

14) This **document F1c** and underlying **document F1a 2014** shows that with Einstein's famous formula $E = mc^2$ mass cannot be converted into energy. This formula does not apply to m = mass!

15) Under Uiterwijk Winkel the formula $E = mc^2$ applies exclusively for annihilation of matter and antimatter equivalent; see **figure 15e.** During annihilation not only photons are freed but in addition an amount of rotational energy that quantitatively exactly satisfies Einstein's formula $E = mc^2$ while mass is not converted into energy!
During annihilation nothing of the available mass is converted into energy nor then changes the total amount of charge and spin! At annihilation the originally present mass remains completely intact in the released photons are majorana particles; particles, however their mass, charge and spin present in them are not measurable.
At annihilation the formula $E = mc^2$ must be interpreted very differently than is done in the year 2014!
Such a fundamentally different explanation and interpretation of the formula $E = mc^2$ from the theory of relativity and of annihilation has far-reaching implications for the current base (2014) Science.

* 7) CONCLUSIONS:

1)   In this **paper F1c**, the author is the first person who gives a plausible structure for the return of only protons (= ordinary matter) and electron (= antimatter) from kinetic energy (frankinos and photons). These two particles form the basic building blocks of the element hydrogen.
Via nuclear fusion from hydrogen or non-stable elements in accordance with the isotopes of the periodic system can be built up step by step, in conjunction with velocity in the universe.
(This is further elaborated in **document F1d and figures 18 - 22**)

2)   From the current prevailing standard model of science, with its approximately 20 particles, the (anti-) proton and / or the (anti) electron, nor the isotopes of the periodic table, cannot be transformed back incrementally.

3)   The author defines: when from the outside a construction of photons gets rotational energy with a quantity of $E = \frac{1}{2}\,mc^2$, then this construction is characterized by *matter* or *antimatter*, depending on the rotation direction. In this case, the (anti) proton or the (anti) electron is formed.
In the universe in fact net only ordinary protons (= ordinary matter) and ordinary electrons (= anti matter) are formed.

4)   Equivalent matter and antimatter annihilate. Thereby incrementally photons and an amount of rotational energy of $E = mc^2$ are released. See **figure 15e.** During annihilation no conversion of mass into energy will happen. The present amount of electric charge and magnetic spin will not change!
Einstein's formula $E = mc^2$ applies only to annihilation and the construction of the (anti) proton and the (anti) electron from photons.

5)   So the formula $E = mc^2$ and the phenomenon of annihilation must fundamentally be interpreted differently than until now, because during annihilation mass is not at all converted into energy.
Einstein's famous formula represents something very different than thought!

6)   Photons released during annihilation are majorana particles **(F1b).** Photons are real particles without a measurable mass, charge and spin. Photons bear an electric dipole and a magnetic quadrupole.

7)   The majorana nature of photons and neutrinos/frankinos has put science to 2014 quite the wrong way!

8)   To the present (2014) both in relativity theory and in the Big Bang one the incremental display, obeying the principle of exactly one, is lacking of:
-)   the *stepwise* transformation of mass or matter in 'pure' energy and *vice versa*,
-)   the *stepwise* formation successively of the proton, electron, neutron, hydrogen and
-)   the *stepwise* formation and build-up of the isotopes of the periodic system.
More than half a century after the publication of the Big Bang theory the first period of 380,000 years after the Big Bang is therefore still obscure and opaque.

9)   Even Einstein's formula $E = mc^2$ and the theory of relativity must comply with such a stepwise representation *the min/max 1 principle* in terms of simple step transitions with only one change at the time. Unfortunately the author did not succeed to show the single steps according to formula $E = mc^2$ to get fit within the min/max 1 principle. Simply said: it is impossible.

Ir. A.P.B. Uiterwijk Winkel *)
December 31, 2014