Wow! Signal as a Harbinger of a Revolution in Physics

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Abstract: In the first part we show that in the Wow! signal extraterrestrial civilization coded the foundations of physics ignored or distorted by the scientific community on Earth, while in the second part I used numerology to point out the missing key elements of the ultimate theory scientifically described in the Scale-Symmetric Theory.

Part One

1. Introduction

The Wow! signal was a radio signal received on August 15, 1977, by Ohio State University's Big Ear radio telescope [1]. Most of its operation was in the 21-cm radio band. The receiver covered an 8-MHz bandwidth from 1411 to 1419 MHz.

The string of numbers and characters "6EQUJ5" we see in channel 2 of the printout [1].

The signal-strength sequence "6EQUJ5" in channel 2 of the computer printout represents the following sequence of signal-to-noise ratios [1]:

6:   6 (up to 7)
E: 14 (up to 15)
Q: 26 (up to 27)
U: 30 (up to 31)
J: 19 (up to 20)
5:   5 (up to 6)

The intensity received (for example, "E") means that the signal was 14.5 ± 0.5 times stronger than the background noise.

Notice that each element in the signal is defined by two numbers (the lower and upper limit) differing by one.

In the printout, the noise is defined by empty place: we can assume that there is zero:

0:   0 (up to 1) i.e. noise is from 0 to 1 and is represented by empty place.

In the printout very frequently appears number 1:

1:   1 (up to 2)

2. The real length of the Wow! signal and the first motivated way to divide the signal

Notice that the two first numbers in the Wow! signal are 6 and 14 (E). Let's check if they can define the true length of the Wow! signal.

The first number 6 defines number of elements in the main part of the Wow! signal. On the other hand, we have $14 = 6 + 8$. This suggests that the signal sender indicates that he also uses eight numbers after the main part of the signal. A sequence of numbers immediately after it is 01100100 [1]. The second part consists of the low-value signal-to-noise ratios.

How we can interpret it?

We can assume that the second part of the string, i.e. the part composed of the zeros and ones, i.e. the part composed of the low-value signal-to-noise ratios: "01100100", shows whether we correctly measured the signal-to-noise ratios for the main part "6EQUJ5". We know that in the binary system, the sequence 01100100 represents number 100. On the other hand, the sum of all numbers in the main part is 100 also

$$6 + E + Q + U + J + 5 \ = \ 6 + 14 + 26 + 30 + 19 + 5 = 100.$$

It leads to conclusion that measured by the Ohio-State-University team the signal-to-noise ratios for "6EQUJ5" are correct.

3. The second motivated way to divide the signal

The main part consists of 6 elements. Let's create two groups each containing three elements and calculate the sum of numbers.

For "6EU" is

$$6 + E + U = 6 + 14 + 30 = 50,$$

and for "QJ5" is

$$Q + J + 5 = 26 + 19 + 5 = 50.$$

The sums are the same so such a division is justified.

We can use as well the English alphabet for our numerology analysis:

1 (A), 2 (B), 3 (C), 4 (D), 5 (E), 6 (F), 7 (G), 8 (H), 9 (I), 10 (J), 11 (K), 12 (L), 13 (M), 14 (N), 15 (O), 16 (P), 17 (Q), 18 (R), 19 (S), 20 (T), 21 (U), 22 (V), 23 (W), 24 (X), 25 (Y), 26 (Z).

Calculate the sums:

"6EU" = $6 + 5$ (E) $+ 21$ (U) $= 32$,
"QJ5" = 17 (Q) $+ 10$ (J) $+ 5 = 32$.

Such an incredible double coincidence must lead to important information which we will describe in the next paragraph.

4. The degrees of freedom of the SST manifolds in the Wow! signal

According to the Sale-Symmetric Theory (SST), the initial inflation field composed of the non-gravitating, superluminal tachyons transformed into stable and meta-stable manifolds. The SST degrees of freedom are the physical and mathematical quantities which we need to

describe shape, location and possible motions of the SST manifolds. The SST manifolds are balls, closed strings/loops, and tori with ball/scalar in their centres [2], [3].

The phase transitions of the SST inflation field show that there are five stable levels of Nature: the SST Higgs field composed of the non-gravitating tachyons (they have 6 degrees of freedom), the spin-1 binary systems of closed strings (entanglons) which are responsible for the quantum entanglement (10 degrees of freedom), the Einstein spacetime composed of the neutrino-antineutrino pairs (26 degrees of freedom), the cores of baryons (58 degrees of freedom) and the core of the Protoworld (122 degrees of freedom [2] but we should also take into consideration dark-matter particles) which evolved into the normal and dark matter and "attracted" dark energy [3]. The formula for the degrees of freedom of the five basic/stable SST manifolds of Nature looks as follows

$$N_{1,d} = \text{(absolute value of) } [8 \bullet (2d - 1) + 2], \qquad (1)$$

where d are the Titius-Bode (TB) numbers: $d = 0, 1, 2, 4, 8$. We obtain respectively 6, 10, 26, 58 and 122.

We can write formula for the degrees of freedom also in following form

$$N_{2,d} = \text{(absolute value of) } [8 \bullet (d - 1) + 2], \qquad (2)$$

where d are the Titius-Bode numbers: $d = 0, 1, 2, 4, 8, 16$ [2]. We obtain respectively 6, 2, 10, 26, 58 and 122. Notice that rotational energy has 2 degrees of freedom and such is physical interpretation of the last number 2 in formulae (1) and (2).

Notice that number 10 is characteristic for the string theory (M-theory).

The Wow! signal is a sequence of the signal-to-noise ratios – each element changes its value from n to $(n + 1)$, for example, for 6 is 6 up to 7. It suggests that following formula is very important in deciphering the Wow! signal

$$N = 2 \bullet [n + (n + 1)]. \qquad (3)$$

We can use this formula for the transition from n to N or transformation from N to n.

For the all elements in the complete Wow! signal, i.e. for 6, E, Q, U, J, 5, 0 and 1, we obtain

6 i.e. $n = 6$ so $N = 2 \bullet (6 + 7) = 26 = N_{2,d=4}$
E i.e. $n = 14$ so $N = 2 \bullet (14 + 15) = 58 = N_{2,d=8}$
Q i.e. $n = 26$ so $N = 2 \bullet (26 + 27) = 106$ i.e. 10 and 6 i.e. $N_{2,d=2}$ and $N_{2,d=0}$
U i.e. $n = 30$ so $N = 2 \bullet (30 + 31) = 122 = N_{2,d=16}$
J i.e. $n = 19$ so $N = 2 \bullet (19 + 20) = 78$
5 i.e. $n = 5$ so $N = 2 \bullet (5 + 6) = 22$

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0 i.e. $n = 0$ so $N = 2 \bullet (0 + 1) = 2 = N_{2,d=1}$
1 i.e. $n = 1$ so $N = 2 \bullet (1 + 2) = 6 = N_{2,d=0}$

We can see that the degrees of freedom of the SST manifolds are indeed encoded in the Wow! signal.

We can see that the numbers 106, 78 and 22 do not result from formulae (1) and (2). To decode their physical meaning we must describe shortly the SST manifolds.

Consider a rotating and moving ball/tachyon with a grainy structure. It has maximum 6 degrees of freedom: x, y, z for the centre, distance r_i from the centre, spin speed $v_{i,spin}$ at distance r_i and linear speed of a ball as a whole $v_{i,linear}$ – in such a way behave the SST tachyons [2]. The SST tachyons with lower linear speed have bigger radius [2].

Consider a torus. It has maximum 10 degrees of freedom: x, y, z for the centre, two radii r_i and r_j, toroidal speed $v_{i,toroidal}$, poloidal speed $v_{i,poloidal}$, two angular speeds for rotating axis of revolution (for rotating spin) $\omega_{i,spin}$ and $\omega_{j,spin}$ and linear speed $v_{i,linear}$ – in such a way behave a torus or the SST closed strings or binary system of identical closed strings [2]. Notice that a non-rotating-spin binary system of identical tori has 8 degrees of freedom i.e. $10 - 2 = 8$. We can see that the number 2 concerns the pure rotational energies. Notice that the number 2 in formula (1) and (2) (it corresponds to the zeros in the printout i.e. to the noise) concerns the rotation of the spins of the tori in the manifolds. Formula (2) suggests that pure rotation can be separated from inertial mass. But it is not true – just carriers of photons and gluons have infinitesimal mass [2].

Consider a torus with central ball/scalar both composed of non-rotating-spin smaller tori/closed-strings. It has maximum 26 degrees of freedom: 8 for components of the torus, 8 for components of the ball/scalar and 10 for the torus as a whole – in such a way behave the SST neutrinos and binary systems of them i.e. the Einstein-spacetime components [2].

Consider a torus with central ball/scalar both composed of the non-rotating-spin Einstein-spacetime components. It has maximum 58 degrees of freedom: 24 for components of the torus, 24 for components of the ball/scalar and 10 for the torus as a whole – in such a way behave the SST cores of baryons and electrically charged leptons [2].

Consider a torus with central ball/scalar both composed of the non-rotating-spin cores of baryons. It has maximum 122 degrees of freedom: 56 for components of the torus, 56 for components of the ball/scalar and 10 for the torus as a whole – it concerns the SST Protoworld [2], [3].

Emphasize that for the non-rotating-spin tori with central ball/scalar we obtain following degrees of freedom: 24, 56 and 120. Notice that number 24 appears in the Ramanujan modular functions.

We can see that for the rotating-spin stable manifolds (they are stable due to their interactions with the Higgs field and due to the exchanged groups of smaller manifolds) there is valid following formula

$$N_{3,d,maximum} = \text{(absolute value of) } \{[8 \bullet (d - 1)] + [8 \bullet (d - 1)] + 10\}, \qquad (4)$$

where d are the Titius-Bode numbers: $d = 0, 1, 2, 4, 8$. We obtain respectively 6 (tachyons), 10 (entanglons), 26 (Einstein-spacetime components), 58 (cores of baryons) and 122 (core of the Protoworld).

On the other hand, for the non-rotating-spin stable manifolds we obtain

$$N_{3,d,maximum}* = \text{(absolute value of) } \{[8 \bullet (d - 1)] + [8 \bullet (d - 1)] + 8\}, \qquad (5)$$

where d are the Titius-Bode numbers: $d = 1, 2, 4, 8$. We obtain respectively 8 (entanglons), 24 (Einstein-spacetime components), 56 (cores of baryons) and 120 (core of the Protoworld).

Now we can decipher the three meta-stable cosmological manifolds created in the spacetime which are described by the 106, 78 and 22 degrees of freedom deciphered from the Wow! signal. The general formula for a rotating-spin torus (10 degrees of freedom) with a central scalar both composed of the same manifolds, N', which exchange the same or smaller manifolds, N_{exch}, or which do not exchange manifolds, looks as follows

$$N_{cosmological-manifold} = \{[N' + N_{exch}] + [N' + N_{exch}] + 10\}, \qquad (6)$$

For the first meta-stable cosmological manifold created in the SST Higgs field is

$$N_{cosmological-manifold}(22) = \{[6 + 0] + [6 + 0] + 10\} = 22. \qquad (7)$$

It is a "gaseous" torus with central ball/scalar both composed of the SST tachyons. The tachyons interact due to the dynamic viscosity which leads to the most fundamental force.

For the second meta-stable cosmological manifold created in the Einstein spacetime is

$$N_{cosmological-manifold}(78) = \{[24 + 10] + [24 + 10] + 10\} = 78. \qquad (8)$$

It is a torus with central ball/scalar both composed of the non-rotating-spin Einstein-spacetime components which exchange the rotating-spin entanglons (they are responsible for the quantum entanglement).

For the third meta-stable cosmological manifold (it as well is created in the Einstein spacetime) is

$$N_{cosmological-manifold}(106) = \{[24 + 24] + [24 + 24] + 10\} = 106. \qquad (9)$$

It is torus with central ball/scalar both composed of the non-rotating-spin Einstein-spacetime components which exchange the Einstein-spacetime components. It leads to conclusion that in the Einstein spacetime are the spin-0 (scalar) and spin-2 quadrupoles of neutrinos (the SST "gravitons"). The spin-2 SST "gravitons" gravitate, i.e. they have infinitesimal mass, but emphasize that the elementary gravitational fields are the gradients produced in the SST Higgs field by neutrinos – it is due to the coupling of the binary systems of closed strings (entanglons) the neutrinos consist of with the SST Higgs field. The spin-0 quadrupoles of neutrinos, the spin-1 dipoles of neutrinos and the spin-2 "gravitons" all are the components of the Einstein spacetime – the streams in the Einstein spacetime ("the gravitational waves"), produced due to the strong gravitational and other interactions, consist of such objects [4].

When we neglect the superluminal stable manifolds, i.e. the SST tachyons and entanglons, then the SST leads to following sequence for stable manifolds (StaMan):

StaMan: 26, 58, 122

and to following sequence for meta-stable cosmological manifolds (CosMan):

CosMan: 22, 78, 106.

On the other hand, we showed that the numbers in the upper sequence follow from the part "6EU" whereas the numbers in the lower sequence follow from the part "QJ5" so the division to such parts postulated in Paragraph 3 is justified. Notice that sum of the numbers in

each sequence is 206 i.e. is the same. The probability of such a strong coincidence as a result of the case is practically equal to zero. It suggests that the Wow! signal was emitted by an Extra-Terrestrial Intelligence (ETI).

By applying formula (3) to the noise (i.e. 0 up to 1) we obtain respectively 2 (rotation) and 6 (the SST tachyons) so the noise we can read as "rotating tachyons" or "the SST Higgs field".

By applying formula (3) to the ground state above the noise (i.e. 1 up to 2) we obtain respectively 6 (the SST Higgs field) and 10 (the binary systems of the closed strings i.e. the entanglons) so such ground state we can read as "the entanglons interacting with the SST Higgs field" – such interactions produce the elementary gravitational fields [2].

By applying formula (3) to the first element in the Wow! signal (i.e. 6 up to 7) we obtain respectively 26 and 30 so we can read it as "the Q and U elements with the highest values of the signal-to-noise ratios" or as "the nucleus of iron $_{26}Fe^{(26 + 30)}$ is most stable".

5. The third motivated way to divide the Wow! signal

Notice that two elements in Wow! signal with highest signal-to-noise ratios, i.e. $Q(26)$ and $U(30)$, are the numbers of protons and neutrons in iron $_{26}Fe^{(26 + 30)}$ whereas the two lowest ratios, i.e. 5 and 6, are the numbers of protons and neutrons in boron $_5B^{(5 + 6)}$. It forces the division of the Wow! signal into three pairs: QU, EJ and 65. An interpretation of such pairing we described in Paragraph 6.

6. The Wow! signal leads to ratios of the angles in the neutrino-mixing matrix derived within the SST

According to SST, the ratios of the angles in the neutrino-mixing matrix are $4 : 5 : 1$ (the SST angles [5] overlap with the intervals defined by experiments [6]).

In Paragraph 5, we showed that an ETI suggests following pairing of the Wow! signal elements: QU, EJ and 65. Differences in the signal-to-noise ratios for the components of the pairs are as follows:

$U - Q = 30 - 26 = 4$
$J - E = 19 - 14 = 5$
$6 - 5 = 1$

The ratios of the differences in the signal-to-noise ratios are

$(U - Q) : (J - E) : (6 - 5) = 4 : 5 : 1$

On the other hand, the PMNS matrix is parameterized by three mixing angles. We can arrange the mixing angles because of the indicators: Θ_{12}, Θ_{23} and Θ_{13}. In the SST, their ratios are [5]

$\Theta_{12,SST} : \Theta_{23,SST} : \Theta_{13,SST} = 4 : 5 : 1$ (i.e. $33.0616° : 41.3250° : 8.2654°$)

The experimental 3σ allowed ranges of the 3-neutrino oscillation parameters, derived from a global fit of the current neutrino oscillation data [6] are collected in Table 1.

It is very important that the Wow! signal leads to the SST results.

Notice that sum of the indicators is $12 + 23 + 13 = 48$ whereas of the ratios is $4 + 5 + 1 = 10$ – these two numbers appear in the distinguished date (see Paragraph **19**).

Table 1. *Mixing angles from experiments* [6]

Mixing angle	Mixing angles [°]; 3σ; Normal Ordering [6]
Θ_{12}	31.42 – 36.05
Θ_{23}	40.3 – 51.5
Θ_{13}	8.09 – 8.98

7. The fine-structure constant from the Wow! signal and SST

Here we will show that both the even numbers in the Wow! signal (WowSig) and the StaMan numbers plus the CosMan number 106 lead to the inverse of the fine-structure constant with six significant ciphers i.e. we show that there is a strong coincidence between the inverse of the fine-structure constant $1/\alpha_{em} = 137.036$ and the all 4 even numbers in the Wow! signal and the 7 from the 9 SST numbers defining degrees of freedom of the SST manifolds. The inverse of the fine-structure constant leads to sequence: $1, 3, 7, 0, 3, 6$. Using formula (3) two times to each cipher in this sequence, we obtain:

1 so $2•(1 + 2) = 6$ (WowSig and StaMan) so $2•(6 + 7) = 26$ (WowSig and StaMan)

3 so $2•(3 + 4) = 14$ (WowSig) so $2•(14 + 15) = 58$ (StaMan)

7 so $2•(7 + 8) = 30$ (WowSig) so $2•(30 + 31) = 122$ (StaMan)

0 so $2•(0 + 1) = 2$ (StaMan) so $2•(2 + 3) = 10$ (StaMan)

3 so $2•(3 + 4) = 14$ (WowSig) so $2•(14 + 15) = 58$ (StaMan)

6 so $2•(6 + 7) = 26$ (WowSig and StaMan) so $2•(26 + 27) = 106$ (CosMan)

We can see that the two identical transformations of the ciphers in the inverse of the fine-structure constant lead to the 4 even WowSig numbers (6 times; there are 6 WowSig numbers) and to the 7 StaMan+CosMan numbers (9 times; there are 9 SST numbers defining degrees of freedom of the SST manifolds). The probability of such a strong coincidence as a result of the case is very low. It suggests that the Wow! signal was emitted by an Extra-Terrestrial Intelligence (ETI).

Emphasize that both the transition from n to N applied to the part "6EU" described in Paragraph 3 and the transition from n to N applied two times to the StaMan sequence (i.e. $26, 58, 122$) lead to number 137. It suggests that both the Wow! signal and the Scale-Symmetric Theory lead to the fine-structure constant at low energy. Emphasize also that the Wow! signal leads to two isotopes i.e. $_6C^{14}$ and $_{14}Si^{30}$ which select the numbers $6, 14$ (E) and 30 (U) in the order recorded here. Such order leads to the number 137.

8. The strong-weak interactions

Consider the pair "J5". After the number 5, there is the end of the main part of the Wow! signal so we can add a dot: "J5.". The reverse order gives: ".5J". To elements of the Wow! signal we can apply formula (3) without multiplication by 2

$$N^* = [n + (n +1)]. \tag{10}$$

We obtain

5 i.e. $n = 5$ so $N^* = (5 + 6) = 11$
J i.e. $n = 19$ so $N^* = (19 + 20) = 39$

Applying formula (10) to ".5J" we obtain $.1139$ or 0.1139. The SST shows that when we take into account the pure strong-weak interactions only (i.e. we neglect the weak interactions, especially the production of the Z bosons) then there appears at very high energies an asymptote for the coupling constant for the strong-weak interactions. Value for the asymptote is $\alpha_{strong}(E$ tends to infinity$) = 0.1139$ [2].

9. The Wow! signal leads to discoverer of the Planck constant

Rank the signal-to-noise ratios from the largest to the smallest

$U, Q, J, E, 6, 5 = 30, 26, 19, 14, 6, 5$

Let's consider the differences between the signal-to-noise ratios (for ratios arranged from the largest to the smallest): $4, 7, 5, 8, 1$ or (for ratios arranged from the smallest to the largest): $1, 8, 5, 7, 4$

The ciphers 4 and 7 lead to $_{19}47$ (date of M. Planck's death).
The ciphers 5 and 8 lead to $_{18}58$ (date of Planck's birth).
The ciphers 1 and 8 lead to $_{19}18$ (date in which the Nobel Prize for quantifying the radiation of a black body was awarded (received in 1919) to Max Karl Ernst Ludwig Planck).
Notice that the first ciphers $4, 5, 1$, are the same as the ratios of the neutrino-mixing angles.
Some dates and many other coincidences suggest that the Earth is monitored by an ETI.

10. Some distinguished dates

Because of the Planck constant, the year 1900 is the beginning of the quantum revolution in physics. To the elements in the Wow! signal we can apply following formula

$$Year = 1900 + N^* \text{ (from formula (10))}. \tag{11}$$

We obtain:

6 i.e. $n = 6$ so $Year = 1900 + (6 + 7) = 1913$ (in this year, the Bohr's theory of atom appeared; the atom-like structures are very important in particle physics and cosmology)
E i.e. $n = 14$ so $Year = 1900 + (14 + 15) = 1929$ (the Hubble's law for the expanding Universe appeared)
Q i.e. $n = 26$ so $Year = 1900 + (26 + 27) = 1953$ (Iosif Shklovski is noted for his suggestion that the radiation from the Crab Nebula is due to synchrotron radiation; there is a

helium-rich torus – the tori with different sizes appear in the phase transitions of the SST inflation field; we should explain structure of the torus in the Crab Nebula and influence of the supernova explosions on the Earth)

U i.e. n = 30 so Year = 1900 + (30 + 31) = 1961 (Yuri Gagarin: First Man in Space)

J i.e. n = 19 so Year = 1900 + (19 + 20) = 1939 (1.09.1939: the beginning of the World War II)

5 i.e. n = 5 so Year = 1900 + (5 + 6) = 1911 (discovery of the atomic nucleus)

Notice that the year 1953 leads to the Crab Nebula. There is a helium-rich torus with two faint stars in its centre. On the other hand, SST shows that structure of muon is similar – there is torus and two energetic neutrinos in its centre [2].

We can apply to elements in the Wow! signal following formula

$$\text{Year} = 1900 + N \text{ (from formula (3)).} \tag{12}$$

6 i.e. n = 6 so Year = 1900 + 2 • (6 + 7) = 1926 (Enrico Fermi and Paul Dirac are developing rules for the behaviour of fermions: the fermion-antifermion pairs)

E i.e. n = 14 so Year = 1900 + 2 • (14 + 15) = 1958 (establishment of an institution coordinating American space research: NASA)

Q i.e. n = 26 so Year = 1900 + 2 • (26 + 27) = 2006 (NASA's Stardust mission successfully ends, the first to return dust from the comet 81P/Wild (Wild 2) discovered in 1978).

U i.e. n = 30 so Year = 1900 + 2 • (30 + 31) = 2022 (? – an abbreviation of it is 222 = 6 + 10 + 26 + 58 + 122 so the date probably will be associated with the stable manifolds)

J i.e. n = 19 so Year = 1900 + 2 • (19 + 20) = 1978 (the date of election of Pope John Paul II: 16-10-1978 – we should read it as follows: Religion for an Extra-Terrestrial Intelligence is important)

5 i.e. n = 5 so Year = 1900 + 2 • (5 + 6) = 1922 (the Nobel Prize for N. H. D. Bohr – we should read it as follows: In our Cosmos, there dominates the atom-like structure i.e. a core and orbits/shells around it)

11. Abundances of "normal" matter (NM), dark matter (DM) and dark energy (DE) in the Universe from the Wow! signal

Consider the ratios 4 : 5 : 1 derived from the Wow! signal in Paragraph **6** with the motivation described in Paragraph **5**. We can use the down-up order of the ratios: 1 : 5 : 4. Abundances of isotope $_5B^{(5 + 6)}$ (which leads to the 1) and $_{26}Fe^{(26 + 30)}$ (which leads to the 4) are maximum – it suggests that the number 14 refers to dark energy (DE) (abundance of DE in the Universe is maximum) whereas the B (i.e. 1) refers to B-aryons i.e. to "normal" matter (NM). On the other hand, abundance of $_{14}Si^{30}$ (it combines the 5 with the 4) is higher than $_6C^{14}$ (it combines the 1 with the 5) so number 54 is distinguished. But abundance of dark matter (DM) must be lower than DE (number 14) so instead 54 should be 5.4.

The above remarks lead to following ratios

$$\text{NM : DM : DE} = 1 : 5.4 : 14 . \tag{13}$$

When we assume that the sum 1 + 5.4 + 14 = 20.4 refers to 100% then calculated abundances from formula (13) are:

NM: 4.9%

DM: 26.5%

DE: 68.6%

Obtained here results are consistent with observational data [7] and with the Scale-Symmetric-Theory theoretical results [3].

12. Wow! signal leads indirectly to N. H. D. Bohr

The Bohr model was published in two papers in 1913 in London [8]. On the other hand, the complete theory of hydrogen atom described within the Scale-Symmetric Theory [9] was formulated in Poland. Moreover, there is the atom-like theory of baryons [2] formulated in Poland also. It suggests that the English and Polish alphabets are distinguished.

In Paragraph **3** we used the English alphabet:

1 (A), 2 (B), 3 (C), 4 (D), 5 (E), 6 (F), 7 (G), 8 (H), 9 (I), 10 (J), 11 (K), 12 (L), 13 (M), 14 (N), 15 (O), 16 (P), 17 (Q), 18 (R), 19 (S), 20 (T), 21 (U), 22 (V), 23 (W), 24 (X), 25 (Y), 26 (Z).

In this paragraph, we will use as well the Polish alphabet in such a way to obtain following transition

of "CUD" (Polish "CUD" means English "MIRACLE") into "MEN" (i.e. human beings).

To do it we must separate vowels (v) from consonants:

Vowels: 1 (A, Ą), 2 (E, Ę), 3 (I), 4 (O), 5 (U, Ó), 6 (Y)

Consonants: 1 (B), 2 (C, Ć), 3 (D), 4 (F), 5 (G), 6 (H), 7 (J), 8 (K), 9 (L), 10 (Ł), 11 (M), 12 (N, Ń), 13 (P), 14 (R), 15 (S, Ś), 16 (T), 17 (W), 18 (Z, Ż, Ž),

and we must introduce the pairing

*for vowels: 1-4, 2-5, 3-6

*for consonants: 1-10, 2-11, 3-12, 4-13, 5-14, 6-15, 7-16, 8-17, 9-18

There is CUD ≡ (POL) 2, 5 (v), 3. Via the pairing is: 2, 5 (v), 3 ≡ (POL) 11, 2 (v), 12. The decoded word is: 11, 2 (v), 12 ≡ (POL) MEN.

The Wow!-signal sequence is: 6, 14, 26, 30 (there is not in English alphabet number 30 so we apply the reduced value: 3 + 0 = 3), 19, 5.

By using the English alphabet we obtain:

6, 14, 26, 30 (3 + 0 = 3), 19, 5 ≡ (ENG) F, N, Z, C, S, E

By using the Polish alphabet we obtain

F, N, Z, C, S, E ≡ (POL) 4, 12, 18, 2, 15, 2

The sums of related numbers are (the Wow!-signal sequence 6, 14, 26, 30, 19, 5 relates to 4, 12, 18, 2, 15, 2):

$6 + 4 = 10$ i.e. reduced value is 　　　　　　　　　1
$14 + 12 = 26$ i.e. reduced value is 　　　　　　　　8
$26 + 18 = 44$ i.e. reduced value is 　　　　　　　　8
$30 + 2 = 32$ or $3 + 2 = 5$ i.e. reduced value is 　5
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$19 + 15 = 34$ i.e. reduced value is 　　　　　　　　7
$5 + 2 = $ 　　　　　　　　　　　　　　　　　　　7

We obtain both the date of N. H. D. Bohr birth (i.e. 1885) and Bohr's lifespan (i.e. 77 years).

We can use English alphabet to the Bohr's initials N. H. D. B:

$N + H + D + B \equiv (ENG)\ 14 + 8 + 4 + 2 = 28$

Bohr at the age 28 (in year 1913) published his most important work for which he was awarded the Nobel Prize (1922).

We obtain the year 1922 as follows:

$N + H + D + B \equiv (POL\text{-}pairing)\ D + S + N + Ł \equiv (ENG)\ 4 + 19 + 14 + 0$ (i.e. the lack of letter Ł) $= 37$

In 1922, Bohr was 37 years old.

Notice that the Bohr's initials we can read as follows:

$N \equiv$ Nucleons (the subgroup of baryons)
$H \equiv$ Hyperons (the subgroup of baryons)
$D \equiv$ Delta resonances (the subgroup of baryons)
and
$B \equiv$ Baryons

There are 2 nucleons, 7 hyperons and 4 delta resonances i.e. we have number $274 = 137 + 137$, where 137 leads to the fine-structure constant which is important in the theory of hydrogen atom [8], [9] but in the theory of baryons as well [2]. According to SST, the photons in the fields with internal helicity (the nuclear strong fields, contrary to the electromagnetic fields, have internal helicity) behave as gluons.

Notice that the Wow! Signal does not lead to the quarks so they are not fundamental objects – SST shows that the quark model is not important at low energies [2]. On the other hand, the Wow! Signal leads to neutrinos. Emphasize that the spin-1 neutrino-antineutrino pairs are in SST the carriers of both photons and gluons.

13. Why the string theory is both amazing and disappointing?

SST shows that it is true that there are closed strings, the long-range scalar forces and a quintessence (the two-component SST spacetime) postulated in paper [10] so why the string theory is disappointing? It follows from the wrong assumption that the closed strings can

vibrate in different ways and we, within the mainstream string theory, cannot from tremendous number of the manifolds select the manifolds realized by Nature. In reality, SST shows that all strings have the same physical properties. Instead the higher spatial dimensions, there is the 4D spacetime with different manifolds defined by the degrees of freedom. All manifolds are built of the identical closed strings coupled with the SST Higgs field. Due to the interactions of the SST manifolds with the SST Higgs field and due to the exchanged smaller manifolds, the manifolds are stable or meta-stable. Such a model leads to very fruitful particle physics and cosmology.

The fundamental coupling, i.e. the coupling of the closed strings with the SST Higgs field, is a result of the dynamic viscosity that follows from smoothness of surfaces of the tachyons and closed strings.

In SST, contrary to the string theory, number of vacuum states is not numerous because it is based on a few properties of the non-gravitating tachyons and on a few symmetries.

Part Two

14. Rules for divine messages encoded in the Wow! signal

W. H. Bickers used numerology (i.e. words-numbers) to decode a religious message in the Wow! signal [11]. There are relationships that reinforce Bickers' religious message:

ENG: 146 = WILLIAM BICKERS
    = WHITE-TAILED EAGLE (as a spirit or soul [15])
    = SYLWESTER
   79 = WILLIAM
    = WORDS
   61 = HARDING
    = MIRACLE
   67 = BICKERS
    = SOUL
  140 = WILLIAM HARDING
    = MYTHOLOGY   (14)

On the other hand, in this and next paragraphs I try to show the connections of the Wow! signal with physics, cosmos, mythology and religion. We will call such complex messages divine messages. It means that in this paper, to interpret correctly messages, we use sets of numbers-words which follow from the Wow! signal.

Such complexity causes that among the enormous number of words-numbers decoded by Bickers 21 appears in this paper. They are:

ENG: God (26), Eden (28), the (33), USA (41), new (42), Heaven (55), sky (55), star (58), holy (60), Israel (64), freedom (66), soul (67), Vatican (70), spirit (71), temple (71), world (72), Jesus (74), Messiah (74), cross (74), words (79), religion (89).

To the Bickers words "AMEN" and "DEMON" I apply the Polish alphabet.

We apply the following rules in this and the following paragraphs.

To amplify the messages arising from the Wow! signal notice that:

ENG: 64 = 6EQUJ5 = NOUN ,   (15)

i.e. the number must be equivalent to a noun or a set of nouns. Other parts of speech are not welcome. Only in justified cases we will use the plural noun.

There are privileged following sets of numbers.

From the lower values in the Wow! signal is

$$A_i = 6, 14, 26, 30, 19, 5 \,. \tag{16}$$

Due to the formula $B_i = 4A_i + 2$, the lower values in the Wow! signal lead to following series

$$B_i = 4A_i + 2 = 26, 58, 106, 122, 78, 22 \,. \tag{17}$$

The third series follows from SST and, partially indirectly, results from the four first numbers in the Wow! signal

$$C_i = 6, 10, 26, 58, 122 \,. \tag{18}$$

It is a set of five elements i.e. a pentad.

Other messages are "weaker" but sometimes very important.

Message which relates to a noun-number which is a sum of more and more nouns-numbers is "weaker" and "weaker".

The "ENG" means that we apply English alphabet as it is in Paragraph **3**.

The "POL" means that we apply Polish alphabet as it is in Paragraph **12**.

15. First divine message

The main "English" message which follows directly from the Wow! signal (i.e. from the A_i numbers) is:

$6 = ABC$ (i.e. a guide)
$14 = FAG$
$26 = GOD$
$30 = ARK = EAGLE$ (as a spirit)
$19 = EGG$ (the Amma's egg [12])
$5 = AD$ (as abbreviation of advertisement) $\tag{19}$

The message (19) is the ABC (a guide) for the creation of the Cosmos i.e. the fruit of God's hard work was Amma's ark and egg (as in Dogon mythology [12]) which was the basis of a set of five (5 = AD). The 5 = AD means that cosmos is advertised as pentad i.e. a set of five.

ENG: $60 = PENTAD = ORDER$ $\tag{20}$

i.e. a pentad creates in cosmos order. We showed that the pentad is:

the set of five $= C_i = 6, 10, 26, 58, 122 \,.$

The sum of the numbers A_i is

$$\Sigma A_i = 100 \,. \tag{21}$$

On the other hand is

ENG: 100 = GOD (26) + MESSIAH (74)
 = PAROUSIA (i.e. Day of God or the second coming of Christ)   (22)

i.e. the Wow! signal heralds the arrival of God's day.
  Notice that

ENG: 26 = GOD .   (23)

The Polish alphabet presented here leads to

POL: 26 = BIELIK (i.e. the white-tailed eagle)
         = AMEN (i.e. Amen)
         = MAPA (i.e. map)
         = DOBRO (i.e. good)
         = CUD + DUCH (i.e. miracle plus spirit) .   (24)

Notice also that

ENG: 74 = MESSIAH
         = ENERGY
         = GOSPEL
         = JESUS
         = CROSS
         = QUANTA
         = VIXRA
         = HUNDRED .   (25)

16. Second divine message
The series B_i in (17) leads to following "English" message:

$(\underline{6} + 7)\cdot2$ = 26 = GOD (number 26 in SST is related to neutrinos but they are built of the
                            SST gravitons – see next Paragraph)
$(\underline{14} + 15)\cdot2 = 58$ = SST (i.e. order via tori conserving charge and spin)
                 = STAR
$(\underline{26} + 27)\cdot2 = 106$ = GRAVITON
                  = STRINGS
                  = ORDER (60) + CHAOS (46)
$(\underline{30} + 31)\cdot2 = 122$ = ORDER (60) + TORI (62)
                  = AMMA (28) + COVENANT (94)
                  = ABC (6) + NEUTRINO (116)
                  = INTERGALACTIC (it is not noun)
$(\underline{19} + 20)\cdot2 = 78$ = GRADIENT

$$= \text{GOD (26)} + \text{AMMA (28)} + \text{BANG (24)}$$
$$= \text{POLE (48)} \quad \text{DATE (30)}$$
$$= \text{POLE (48)} \quad \text{ARK (30)}$$
$$(\underline{5} + 6)\cdot 2 \ = 22 = \text{V. (as victory or a versus gradient or volume i.e. an expansion)} . \ (26)$$

The message encoded in (26) is: God Amma as a star-like cosmological object composed of gravitons caused the bang of the pre-bang object. In the SST, the pre-bang object is the Protoworld containing the very early Universe [3], [2].

On the other hand, in the Dogon myth [12], in the beginning there was Amma (i.e. God) and the Egg (Amma, alone, was in the shape of an egg) that contained the Universe.

Below, in brackets, I present my interpretation of the Dogon cosmic expansion.

Amma (i.e. God) opened His eyes (man's eyes opening causes the absorption of photons; it means that God limited quantum entanglement in dark matter because He absorbed most of the SST gravitons i.e. He froze them in a new neutrino) which caused the egg (i.e. dark matter surrounding the very early Universe) to exit from a closed spiral motion (that is, the expansion of the Universe began).

Notice that the number 22 is very important in the Dogon creation story [12].

Cosmos can be understood as

$$\text{ENG: } 266 = \text{ABC (6)} + \text{NEUTRINOS (135)} + \text{GRAVITONS (125)}$$
$$= \text{SIMILARITY (of tori; 135)} + \text{SOUL (67)} + \text{6EQUJ5 (64)} . \quad (27)$$

So there appears following message

$$\text{ENG: } 266 = \text{AMMA IS BUILT OF GRAVITONS} , \qquad\qquad (28)$$

where AMMA is GOD as it is in the Dogon myth.

The sum of the numbers B_i in series (17) is

$$\Sigma B_i = 412 . \qquad\qquad\qquad (29)$$

On the other hand, we have

$$\text{ENG: } 412 = \text{PHYSICS (99)} + \text{COSMOS (84)} + \text{MYTHOLOGY (140)} +$$
$$\text{RELIGION (89),} \qquad\qquad (30)$$

so we, generally, use nouns concerning these four areas of knowledge.

17. Graviton

The third number in B_i (i.e. 106) corresponds to the first and second number in C_i ($3 = 2 + 1$ or $106 \equiv 10$ and 6). SST shows that the number 6 corresponds to degrees of freedom of the gravitational fields while the number 10 corresponds to degrees of freedom of the quantum entanglement. The $106 \equiv (10$ and $6)$ suggests that gravitational field (6) directly interacts with the carriers of quantum entanglement (i.e. the 10 for entanglons) i.e. they interact due to direct collisions – it is consistent with the SST which shows that due to viscosity, such interaction is the fundamental interaction. It is the pure classical interaction. SST shows that only in such a way we can "unify" gravity and quantum entanglement. We see also that the

sum of the upper values in the Wow! signal is 7 + 15 + 27 + 31 + 20 + 6 = 106 (i.e. 10 and 6) so gravity and quantum entanglement are distinguished via following relationship

$$10 \text{ and } 6 \text{ i.e. } 106 . \tag{31}$$

The number 106 is derived from the element $_{26}Q^{27}$ in the Wow! signal

$$(\underline{26} + 27)\cdot 2 = 106 .$$

The number $\underline{26}$ in (31) represents neutrino(s). On the other hand, SST shows that the lightest neutrino is the smallest piece of gravitational mass – it creates the elementary gravitational field defined by the gravitational constant G [2]. SST shows also that neutrino is built of the superluminal binary systems of closed strings (entanglons) which interact with the SST Higgs field. Such interaction creates volumetric gravitational field i.e. a gradient in the SST Higgs field.

But emphasize that the entanglons were created only at the beginning of the SST inflation. Today, to emit the smallest part of the elementary gravitational field, neutrino must emit one entanglon because it carries the smallest part of gravitational field. We can call the spin-1 entanglon plus the smallest part of gravitational field associated with it graviton and it should be represented by the number 106. And it is!

$$(\underline{26} + 27)\cdot 2 = 106 = \text{GRAVITON}$$
$$= \text{STRINGS}$$
$$= \text{ORDER} + \text{CHAOS} . \tag{32}$$

The "ORDER" represents the ordered motions of the SST tachyons in the two closed strings each entanglon consists of while the "CHAOS" represents the chaotic motions of the SST tachyons in the SST Higgs field.

As a summary we can say that we can call "graviton" each mass composed of entanglons placed in the SST Higgs field but single entanglon (i.e. the spin-1 binary system of closed strings) carries smallest part of gravitational field so it is the elementary graviton. On the other hand, the gravitational fields of neutrinos and their associations are defined by the gravitational constant G. For example, a group of two entanglons or four neutrinos with parallel spins can be called the spin-2 mainstream gravitons. In reality, the discovered by LIGO "gravitational waves" are the flows in the Einstein spacetime (it is composed of the binary systems of neutrinos), not a flow in the SST Higgs field which is directly associated with the gravitational fields.

But emphasize that there are no free SST gravitons so quantum gravity does not exist. Gravitational fields we can describe only via gradients in the SST Higgs field.

18. Third divine message
We must distinguish the dimensions (D) from the degrees of freedom (DofF).
In physics, the dimension defines the minimum number of coordinates needed to specify any point within an object plus speed of the point which appears in definition of thermodynamic time (higher speeds of points in the same system cause that the thermodynamic time runs faster).

On the other hand, the degrees of freedom define the minimum number of physical quantities to describe position, shape and possible motions of a physical object. For example, neutrino has 26 degrees of freedom but it is the 4D object.

We can rewrite formula (1) as follows

$$C_i = \text{(absolute value of)} \ [16d - 6] = 6, 10, 26, 58, 122, \tag{33}$$

where $d = 0, 1, 2, 4, 8$ are the TB numbers.

By converting the degrees of freedom of basic structures in our Cosmos (the series C_i in (18)) into words/letters in English (we assign numbers to the letters of the English alphabet as in Paragraph **3**) we get the following "English" message:

$$
\begin{aligned}
6 &= A + B + C \equiv ABC \\
10 &= A + B + C + D \\
&= BAG \\
26 &= GOD \\
58 &= GOD + MEN \\
&= STAR \\
122 &= GOD \ (26) + MEN \ (32) + 6EQUJ5 \ (64) \\
&= GOD + MEN + VEHICLE \ (64) \\
&= STAR + VEHICLE \\
&= STAR + ISRAEL \ (64) \\
&= ORDER \ (60) + SIGNAL \ (62) \\
&= ORDER + POLAND \ (62). \tag{34}
\end{aligned}
$$

The above message can be interpreted as follows.

The abbreviation ABC means "an alphabetical guide" i.e. here it is an ABC of the true initial conditions before the inflation. The ABC of cosmology is "the part of it that you have to learn first because it is the most important."

The ABC = 6 means that initially the inflation field had 3 dimensions (A + B + C i.e. 3D) i.e. the relative speeds of the components of the inflation field were equal to zero i.e. the field was timeless. Moreover, the components had the potential to reveal 6 degrees of freedom after some cosmic collision (there are 3 coordinates, radius, spin speed and linear speed so the components are balls).

So the ABC = 6 defines a 3D granular volume without time i.e. without internal motions but it had six dormant degrees of freedom.

The second expression

$$10 = A + B + C + D = B.C. + A.D. \ \text{(Before Christ + Anno Domini)} \tag{35}$$

means that due to some cosmic collision, there appeared moving objects with 10 degrees of freedom (they are the binary systems of closed strings [2]) which are responsible for the quantum entanglement. After the collision, spacetime had 6 and 10 degrees of freedom and 4 dimensions (A + B + C + D i.e. 4D) i.e. there appeared motions i.e. time.

Notice that the 10 = BAG can be interpreted as "become inflated".

The SST shows that the dark-matter structures are built of the entangled spin-1 neutrino-antineutrino pairs whose spins are set tangentially to the closed or open loops of dark matter. Such dark-matter structures have 26 degrees of freedom the same as the ground state of the Einstein spacetime [2], [3]. So the 26 = GOD means that God is a super-mind which is a dark-matter structure.

The words "God created people in his likeness" mean that our minds, just like God, are dark-matter structures.

The 58 = GOD + MEN = STAR means that God created human beings near a star while the words related to number 122 suggest that God has inspired some intelligent beings to create and send the Wow! signal and that the Wow! signal (and/or people) reached the vicinity of the Earth in a vehicle from the vicinity of another star.

Consider following "English" message:

$$122 = STAR + ISRAEL \text{ (i.e. the Star of David).} \qquad (36)$$

SST shows that number 122 symbolizes the Universe [2]. This means that the Israeli star (the Star of David), i.e. the two triangles pointing opposite directions, symbolizes the expanding and shrinking of the Universe, therefore it is a cyclical Universe.

The sum of the numbers C_i in series (18) is

$$\Sigma C_i = 222 . \qquad (37)$$

On the other hand, we have

ENG: $222 = COSMOS (84) + SYMMETRY (138)$
$= FUNDAMENTAL (111) \ VELOCITY (111)$ (i.e. the mean speed of the SST tachyons in the finite Cosmos) . $\qquad (38)$

Why there is symmetry? The SST is the symmetric theory because for $n = 0, 1, 2, 3$ is

$$N^* = 16 \cdot 2^n - 6 = 10, 26, 58, 122 \qquad (39)$$

for the four basic phase transitions of the SST Higgs field which is represented by number 6.

By the way, we have

$$216 = 10 + 26 + 58 + 122 . \qquad (40)$$

ENG: $216 = SYMMETRIC (125) \ THEORY (91)$
$= EVERLASTING (132) \ COSMOS (84) . \qquad (41)$

Emphasize that I originally called the SST the Everlasting Theory. Notice that

ENG: $256 = THE (33) \ EVERLASTING (132) \ THEORY (91)$
$= SCALE (40) - SYMMETRIC (125) \ THEORY (91) . \qquad (42)$

After the SST inflation, we have the everlasting our Cosmos and cyclic Universe [3].

Notice that only number $26 = GOD$ appears in each of the three series A_i, B_i, C_i.

19. The Pole dates

The $A_i = 19$ up to 20 (i.e. the 5-th element J in Wow! signal) lead to the current year 2019, whereas the $A_i = 5$ (i.e. the 6-th element in Wow! signal) leads to 22 (see (26)) but the first

part $4A_i$ in (17) leads to 20 so we obtain the year 2022. I do not know what will happen in 2019 and 2022, but this should be about the Wow! signal.

Notice that the series C_i (see formula (18)) distinguishes the following date of birth

$$16 - 10 - 48 , \tag{43}$$

because we have:

$$
\begin{aligned}
6 &= 16 - 10 \\
10 &= 10 \\
26 &= 16 + 10 \\
58 &= 10 + 48 \\
122 &= 16 + 10 + 48 + 48 .
\end{aligned} \tag{44}
$$

Notice also that

$16 + 10 + 48 = 74 = $ VIXRA $=$ MESSIAH, and so on – see (25)

and that

$1897 + 122 = 2019$,

where 1897 is the year of identification of first particle i.e. of the electron.

We have

$(\underline{5} + 6) \cdot 2 = 22$ and $22 + 1997 = 2019$,

where 1997 is the year of formulation of theory of the basic phase transitions which are encoded in the Wow! signal. What it means? A harbinger of a revolution in physics?

We have also

$1997 - 1897 = 100$ i.e. hundred but ENG: HUNDRED $= 74 = 48 + 10 + 16$.

We have also: 1885 (the birth of N. H. D. Bohr) $+ 122 = 2007$ (the birth of vixra).

The date 1948-10-16 gives

$$
\begin{aligned}
\text{ENG: } 93 &= 19 + 48 + 10 + 16 \\
&= \text{TORUS} .
\end{aligned} \tag{45}
$$

For the first names of my parents is

$$
\begin{aligned}
\text{ENG:} \qquad \text{LIGIA} &= 38 = 2 \cdot 19 \\
\text{TADEUSZ} &= 96 = 2 \cdot 48
\end{aligned}
$$

so we have: 1948 and $22 = 1 + 9 + 4 + 8.$

POL: TADEUSZ = 60 = 10 · 1 · 6 so 10-16.
          LIGIA = 21 = 1 · 3 · 7 so 137 .

Just before my birth my mother had a dream about cross she associated with me. The cross in dreams can mean great success, joy and victory over death and the triumph of an immortal soul after a period of suffering.
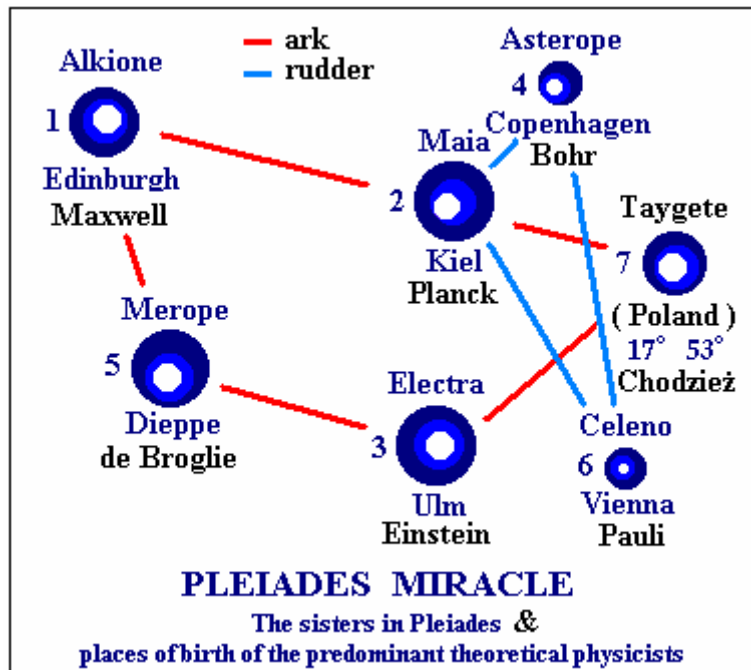
ENG: CROSS = 74 = 48 + 10 + 16 .

20. The Pole ark
We have:

ENG: $(\underline{19} + 20) \cdot 2 = 78 =$ POLE (48) + ARK (30) .   (46)

The Pole ark is the Pleiades Miracle on map of Europe (the word "map", i.e. Polish MAPA appears in (24)) [13]. It concerns the places of birthdays of physicists who changed our understanding of the Universe.
We can connect the odd-numbered cities 1-7-3-5-1 (this is the ark) and the even-numbered 2-6-4-2 (this is the rudder of the ark). For example, the rudder of the Pole ark represents Planck's constant, neutrino and atom theory.

PLEIADES MIRACLE
The sisters in Pleiades &
places of birth of the predominant theoretical physicists

We have

ENG: 100 = ARK (30) + RUDDER (70)   (47)

so the Pole ark is somehow associated with the Wow! signal because $\Sigma\, A_i = 100$ as well.
First written mention about Chodzież is from 1403 while in Posen, after 1879, Chodzież has been known as KOLMAR (70) (see http://en.wikipedia.org/wiki/Chodzież). The two dates 1403 and 1879 lead to the birthday of A. Einstein: 14-03-1879.

Notice also that the 7-th physicist is the steersman of the Pole ark via the lacking part of the Theory of Everything, i.e. the one resulting from the Wow! signal:

ENG: 70 = RUDDER
      = KOLMAR (i.e. Chodzież)
      = VATICAN .   (48)

   1948 (the year of birth of the 7-th physicist)
   +71 (ENG: 71 = PLEIADES = ORION = ZEUS = DEITIES = TEMPLE)
= 2019

21. Pleiades and Orion
In the Bible we read (New International Version):
Job 38:31 "Can you bind the chains of the Pleiades? Can you loosen Orion's belt?"
On the other hand, we have:

ENG: 71 = PLEIADES
      = ORION
      = TEMPLE .   (49)

When we add 71 to the Pole date 16-10-1948, we will receive the current year 2019 which results from the element $^{20}J_{19}$ in the Wow! signal.
By the way, we decoded the May'a-Quiché sacred bundle called Pisom K'ak'al as "POLSKIM K" (i.e. Polish K) [14]. Notice that:

POL: 71 = POLSKIM K   (50)

and that POLSKIM (i.e. 7 letters) + K (i.e. 1 letter) lead to 7 letters and 1 letter i.e. to 71.

22. The words concerning an ORDER

ENG: 122 = ORDER (60) + SIGNAL (62)
       = ORDER + POLAND (62)
       = ORDER + TORI (62) .   (51)

23. Trinity

(30 + 31)·2 = 122
ENG: 122 = USA (41) + BEGINNING (81)
       = POLAND (62) + ORDER (60)
       = ISRAEL (64) + STAR (58) ,   (52)

i.e. U.P.I. as United Press International
and BEGINNING + ORDER + STAR (notice that ENG: 58 = STAR = SST). Notice also that ENG: 60 = ORDER = HOLY so we have: BEGINNING: HOLY (or ORDER) STAR (or SST).

What is the STAR? TAYGETE? Then the STAR Taygete (or SST) symbolizes the BEGINNING of ORDER in Nature. Moreover, for the first time, the SST was published by Tajgeta publishing house (POL: 48 = TAJGETA = TAYGETE).

We have

POL: TAYGETE = TAJGETA = 48 (i.e. Taygete in Pleiades)

GWIAZDA = 48 (i.e. star)

CUD = 10 (i.e. miracle)

DUCH = 16 (i.e. spirit)

_____

The sum is 122 .   (53)

24. Apocalypse of the Universe

ENG: 113 = UNIVERSE

= APOCALYPSE

= CONSTANT (106) G (7) (i.e. the gravitational constant G)

= STAR (58) OBJECT (55)

= HEAVEN (55) AMMA (28) ARK (30)

= HEAVEN (55) EDEN (28) ARK (30)

= DOGON (55) AMMA (28) ARK (30)

= SALVATION .   (54)

There was and will be an apocalypse of the Universe because evolution of the Universe is cyclic. The Amma/God ark is a salvation.

25. Quarks and strings

ENG: 87 = NOTHING

= QUARKS

= STRING

= TRUTH .   (55)

Notice that the first letters of the nouns are arranged as in the English alphabet so we can pair the nouns. My interpretation is as follows: the quark model of hadrons is incorrect while the theory of strings presented in SST is correct.

26. The Amma's egg

ENG: 19 = EGG (i.e. Polish JAJO)

POL: 19 = JAJO .   (56)

The AMMA'S EGG (the Protoworld in SST [3]) is the fundamental cosmological object before the expansion of the Universe [12] so (56) suggests that English and Polish languages are distinguished.

27. Numerology in physics and mythology

ENG: 91 = SPIRIT
= SPACETIME ,   (57)

i.e. spirit is associated with spacetime.

ENG: 69 = BLACK (29) HOLE (40)
= VACANCY .   (58)

Here vacancy is understood as thoughtlessness/vacuity i.e. there are not black holes with central singularity. But there are the neutron "black holes" [3].

ENG: 116 = COSMOS (84) + MEN (32)
= NEUTRINO
= CONFUSION ,   (59)

i.e. cosmos and people are built of neutrinos – the new theory of neutrinos described in SST will lead to a confusion.

ENG: 107 = QUANTUM
= NEUTRON
= CLASSICAL (79) AMMA (28) ,   (60)

i.e. the internal structure of neutron [2] leads to correct interpretation of quantum physics. There are two not simultaneous states in neutron which lead to a mean picture [2] i.e. the quantum superposition is misunderstood. Within SST, there is the classical interpretation of quantum mechanics.

ENG: 102 = GRAVITY
= ENTANGLON ,   (61)

i.e. gravity follows from properties of entanglons placed in the SST Higgs field [2].

ENG: 86 = HIGGS (50) FIELD (36)
= TACHYON ,   (62)

i.e. the SST Higgs field consists of tachyons as it is in SST [2].

ENG: 140 = NEUTRINO (116) + BANG (24)
= DISMEMBERMENT ,   (63)

i.e. the creation of a new neutrino in centre of the Amma's egg plus the expansion of the Universe dismembered dark matter.

ENG: 116 = BARYON (75) CORE (41)
= NEUTRINO ,   (64)

i.e. there is similarity of the core of baryons and neutrinos [2].

ENG: 135 = KORNOWSKI
        = SIMILARITY (of neutrinos, core of baryons, and core of Protoworld i.e. of
                      the Amma's egg – the SST is about similarity)
        = NEUTRINOS
        = CORE (41) + BARYONS (94)
        = EGG (19) + NEUTRINO (116) (i.e. Amma's Egg that transformed into
                      new neutrino and the expanding
                      Universe)
        = 6EQUJ5 / VEHICLE (64) + PLEIADES / ORION (71) (i.e. we are
                      from Orion and Pleiades)
        = VIXRA / MESSIAH (74) + MIRACLE (61)
        = TORUS (93) + CHARGE (42) (i.e. the SST tori conserve charges)
        = QUANTUM (107) + AMMA (28) (i.e. Amma built of the SST gravitons)
        = ELECTRIC (75) + ORDER (60) (i.e. the order via atoms) .   (65)

The definition of a self-similar object is: "the whole has the same shape as one or more of the parts".

ENG: 146 = SYLWESTER
        = HEAVEN (55) + SPIRIT (91)
        = WHITE-TAILED EAGLE (as spirit or soul [15])
        = WILLIAM (79) + BICKERS (67)
        = NEUTRINO (116) + EAGLE (30) (i.e. soul built of neutrinos) . (66)

But emphasize that by using the nouns-numbers without reference to reality we can shock or fool. Whoever is wise will understand that

ENG: 62 = GENERAL = SIGNAL = TORI = POLAND = RIGHT   (67)

and that the transposition 62 into 26 is

26 = (ENG) GOD = (POL) BIELIK = (POL) AMEN

                         ……so be it….   (68)

ENG: 94 = LIKENESS
      = COVENANT ,   (69)

i.e. a likeness of God and people as a covenant.
  A theory based on the main phase transitions we can call the order Theory:

151 = ORDER (60) THEORY (91)
    = ORDER SPIRIT (91) ,   (70)

where 151 is the distance in days from the birth of Pope John Paul II, i.e. 18 – 05, and the distinguished date 16 – 10 here described. Notice that John Paul II was the Pope of the Catholic Church from 16 – 10 – 1978.

28. The "Polish" messages

In this paper we use a few Polish words. The Polish-English dictionary is as follows:

CUD – miracle
DOBRO – good
AMEN – amen
DUCH – spirit
Z£O – evil
DEMON – demon
ZBAWIENIA – salvation
JOWISZ – Jupiter
GWIAZDA – star
TAYGETE – Taygete (in Pleiades)
BIELIK – white-tailed eagle
JAJO – egg
TORUS – torus
ARKA – ark
MAPA – map
NIEBO – Heaven, sky

The Polish alphabet (see Paragraph **12**) leads to the following "Polish" message:

POL:
$$6 = B\,(1) + C\,(2) + D\,(3) \text{ (i.e. the 3D before a collision)}$$
$$10 = CUD \text{ (because of the 3D to 4D transition)}$$
$$26 = CUD + DUCH\,(16) =$$
$$= DOBRO$$
$$58 = DOBRO + Z\text{Ł}O\,(32) =$$
$$= ZBAWIENIA$$
$$122 = DOBRO + Z\text{Ł}O + JOWISZ\,(64)\,. \qquad (71)$$

Jupiter (JOWISZ) was the God of the sky. Why is the planet Jupiter important? This probably applies to the TB number 16 = DUCH (i.e. spirit) which is assigned to Jupiter [16]. The SST gives for semi-major axis of Jupiter 5.13 AU [16]. We have 26 – 10 = 16 and 5.13 · 2 = 10.26 i.e. the numbers 16 and 5.13 are associated with the neutrino-antineutrino pairs (i.e. 26) and with the components of the pairs (i.e. 10) so also with God.

There is the second "Polish" message:

POL:
$$26 = AMEN$$
$$58 = AMEN + DEMON$$
$$122 = AMEN + DEMON + JOWISZ\,. \qquad (72)$$

The structures with the 26, 58 and 122 degrees of freedom are the neutrino-like structures i.e. there is torus and central ball as in quasars [2].

Amen means "so be it" and is a title for God. Amen is eternal.

On the other hand, Demon means "an evil spirit" or "devil" or "fallen angel", and so on.

In the messages, most important are the words 26 = (ENG) GOD, 26 = (POL) DOBRO (i.e. good) and 26 = (POL) AMEN all related to the part of spacetime composed of the neutrino-antineutrino pairs (in SST, it is the Einstein spacetime). Normal matter (i.e. hadrons and charged leptons) and dark-matter structures (for example, minds) are built of the entangled neutrino-antineutrino pairs but notice that arrangement and distances of the pairs in the two states of matter are different. We can say that the arrangements distinguish the good from good connected with evil. Good and evil fight each other. There is God and there are fallen angels.

There is following relationship

$$26 = 10 \text{ (i.e. the superluminal entanglement)} + \text{DUCH (16) (i.e. spirit)} . \qquad (73)$$

God is a dark-matter structure composed of the entangled in the quantum way neutrino-antineutrino pairs. Due to the superluminal quantum entanglement (speed is $0.7 \cdot 10^{68}$ m/s [2]), God can be with very high frequency practically everywhere in our finite Cosmos – the same concerns our minds.

Emphasize that the superluminal motions of God concern the structure composed of the carriers of the quantum entanglement, not the neutrino-antineutrino pairs which are moving with the speed $3 \cdot 10^8$ m/s.

POL: $(\underline{5} + 6) \cdot 2 = 22 = \text{NIEBO}$ (i.e. Heaven or sky)   (74)

On the other hand, we have

ENG: 55 = HEAVEN
$= \text{OBJECT}$
$= \text{DOGON} ,$ (75)

i.e. Heaven as an object.

POL: $(\underline{19} + 20) \cdot 2 = 78 = \text{ARKA (24)} + \text{TORUS (54)}$ (76)

i.e. ark related to a torus.

From astronomy we know that the massive Jupiter guards the Earth from collisions with massive cosmic objects and, on the other hand, the JOWISZ (POL) = 6EQUJ5 (ENG) suggests that the Wow! Signal is somehow related to Jupiter. Emphasize that on 1977 August 15, the comets 266P/Christensen and 335P/Gibbs were very close to the Jupiter orbit [17]. On the other hand, we have

$1753 + 266 \text{ (266P/Christensen)} = 2019$
$1687 \text{ (first edition of the Newton's Principia)} + 335 \text{ (335P/Gibbs)} = 2022 ,$

where 1753 means 17° and 53° which are the geographical coordinates of Chodzież in Poland. Emphasize also that the years 2019 and 2022 follow also from the 5-th and 6-th value in the Wow! signal.

29. The five different messages as coherent information

We showed that order in Nature is due to the SST phase transitions of the Higgs field. So we have

ENG: 347 = Phase (49) transitions (158) of (21) the (33) Higgs (50) field (36)
      = Scale-Symmetric-Theory (256) SPIRIT (91)
      = GRAVITONS (125) + SYMMETRY (138) + COSMOS (84)
      = William-Harding-Bickers (207) MYTHOLOGY (140)
      = Sylwester-Kornowski (281) FREEDOM (66) ,   (77)

where the word FREEDOM means that virtual gluons are free i.e. not confined. In the Standard Model, virtual gluons are confined. In the SST, virtual gluons outside the nuclear strong fields behave as photons and vice versa [2]. The word FREEDOM means also that formulation of the Scale-Symmetric Theory was possible because of my independence from mainstream community.

ENG: 98 = INDEPENDENCE
      = PROTON
      = ATOM (49) MODEL (49) (i.e. the proton has an atom-like structure as it is
                              in the Scale-Symmetric Theory [2])   (78)
i.e. independence via new structure of proton [2].

30. Our cosmological history
For the Wow! signal is $\Sigma\, A_i = 100$ (see (21)) so the number 100 is most important. Can we via number 100 present our cosmological history?
Below is a summary of the cosmological history in order of events.

ENG: 1) 100 = CONDENSATE (i.e. ball of smaller balls)
    2)   = BIG-BANG (42) TWO (58) (i.e. collision of two condensates)
    3)   = INFLATION
    4)   = BIG-BANG (42) "STAR" (i.e. our finite Cosmos [3])
    5)   = MAGNETIC (72) AMMA (28) (i.e. dark-matter structure [3])
    6)   = DARK (34) TIMES (66)
    7)   = DARK (34) AMMA'S (47) EGG (19) (see [12])
    8)   = BLACK (29) SPHERE (71)
    9)   = BANG (24) OF (21) SKY (55) (see (80))
    10)   = AMMA (28) WORLD (72) (i.e. our expanding Universe)
    11)   = GOD (26) + MESSIAH (74)
    12)   = ARK (30) + RUDDER (70) (see Paragraph **20**)
    13)   = PAROUSIA (i.e. Day of God or/and the second coming of Christ)
    14)   = NEW (42) STAR (58) (i.e. journey to a new star in Amma's ark) .   (79)

Some explanation concerning point 5) is as follows: due to the dark matter particle and structures [3], the Protoworld (i.e. the Amma's egg) was and God is the magnetic objects (i.e. not electric because the electric lines in such dark-matter structures are the loops i.e. the electric lines are closed).

Some explanation concerning point 9) is as follows.

ENG: 158 = NEW (42) NEUTRINO (116) (God created it in the centre of the Amma's
egg i.e. He created a seed "Po" which
appears in the Dogon myth [12])

= TRANSITIONS

= THE (33) GRAVITONS (125) ,   (80)

i.e. the creation of new neutrino started the changes in the SST Protoworld (in the Amma's egg) and the very early Universe [3]. Moreover, the BANG OF SKY is associated with the OPENING AMMA'S EYES [12] so we have

ENG: 202 = OPENING (80) OF (21) AMMA'S (47) EYES (54)

= NEUTRINO (116) + HIGGS-FIELD (86) (i.e. creation of new neutrino)

= NEUTRINOS (135) + SOUL (67) (i.e. soul built of neutrinos) .   (81)

In Dogon myth, Amma and the seed Po are built of the same elements – here we show that both are built of the SST gravitons.

All suggests that the Wow! signal is, maybe indirectly, from God.

Emphasize that in the religion of the Dogon, God Amma is also called Amen [19]. On the other hand, in Christianity, Amen means "…so be it...".

31. The inflation model

The message is

ENG: 149 = INFLATION (100) MODEL (49)

= GRAVITATIONAL

= ENERGY-GOD (100) MODEL (49) ,   (82)

i.e. the SST inflation model concerns the entanglons placed in the SST Higgs field [2]. Such inflation leads to dark matter [3].

32. The Kaluza-Klein Theory (KK Theory)

We have

ENG: 56 = THREE = MESS

60 = FOUR = ORDER

42 = FIVE = CHARGE

52 = SIX = MASS (i.e. the inertial mass (physical volume) of the SST tachyons
which have the 6 degrees of freedom) .   (83)

We also have

ENG: 140 = INERTIAL (88) MASS (52)

= OF (21) THE (33) HIGGS (50) FIELD (36) ,   (84)

and

ENG: 88 = INERTIAL

= VOLUME

= ARTIFICIAL (can be the SST tachyons artificial?) ,   (85)

and

ENG: 86 = TACHYON
        = CELESTIAL
        = NINETEEN (i.e. the current year 2019; it is the element J in the Wow!
                    signal).   (86)

Most important to understand the KK Theory is

ENG: 158 = THREE (56) + FOUR (60) + FIVE (42)
         = TRANSITIONS .   (87)

The SST shows that due to the fundamental transitions, we have the 3 spatial directions, 1 direction associated with the linear motion, 1 circular direction associated with the toroidal motion of torus/charge (it is the 5-th dimension in the KK Theory), 1 circular direction associated with the poloidal motion of the torus/charge (it is the 6-th dimension in the SST which is neglected in the KK Theory). The spin of the torus/charge can rotate. Also there is a central condensate in the torus/charge and in the torus/charge are created virtual loops which lead, respectively, to the weak and strong interactions. It means that the KK Theory is correct but it describes in approximation only a part of Nature. Moreover, there are the 4 fundamental phase transitions leading to the 10, 26, 58 and 122 degrees of freedom.

33. The Einstein formula $E = mc^2$

ENG: 150 = ELECTROMAGNETIC (i.e. electromagnetic energy)
         = MASS (52) + SPEED (49) + SPEED (49) (i.e. $E = mcc = mc^2$) .   (88)

34. The number 137

ENG: 137 = CORE (41) OF (21) BARYON (75) ,   (89)

i.e. the fine-structure constant for proton, which concerns the unitary electric charge, is associated with the SST core of baryons, not with the mainstream quarks [2].

35. The nuclear strong interaction

ENG: 93 = STRONG
        = TORUS ,   (90)

i.e. the origin of the nuclear strong interaction is associated with the torus/charge in the core of baryons [2].

36. Weak interaction and quantum physics
In SST, the weak interactions are due to exchanges of scalars/balls

ENG: 102 = WEAK (40) ACTION (62)

= POLE (48) SCALAR (54)
= ENTANGLON
= NIELS (59) BOHR (43) ,   (91)

i.e. the weak interaction is via scalars/condensates entangled via the entanglons (via the superluminal spin-1 binary systems of closed strings) while the quantum physics follows from existence of the superluminal entanglons [2].

37. Neutral pion as miracle particle
We have

ENG: 134 = OPENING (80) PION (54)
          = PSEUDOSCALAR .   (92)

According to SST, neutral pion is the binary system of two spinning loops with antiparallel spins and both loops have the left-handed internal helicity. Interactions of nuclear antimatter produce pions which have right-handed internal helicity.

The internal helicity causes that neutral pion under improper rotation (plane of symmetry is perpendicular to spin velocity of the loops) changes sign so it is pseudoscalar (a true scalar does not change sign). We can say that neutral-pion/pseudoscalar, as a whole, changes internal helicity under improper rotation.

For the neutral pion, we have

ENG: 184 = TWO-LOOPS (135) MODEL (49)
          = INTERNAL (93) HELICITY (91)
          = ENTANGLEMENT (130) + PION (54)
          = TORUS (93) THEORY (91) (we can use it to explain that neutral pion is
                                   a pseudoscalar) ,   (93)
and

ENG: Σ C_i = 222 = IMPROPER (110) ROTATION (112) ,   (94)

and

ENG: Σ A_i = 100 = CHARGED (46) PION (54) ,   (95)

and

ENG: 145 = NEUTRAL (91) PION (54)
          = MIRACLE (61) PARTICLE (84) .   (96)

38. New times?

ENG: 108 = CHODZIESEN (it was the name of the Polish Chodzież in Germany)
          = UFO (42) TIMES (66)
          = COLLISION
          = NEW (42) TIMES (66) .   (97)

39. Tachyons and neutron

ENG: $107 =$ STETTIN (it was the name of the Polish Szczecin in Germany)
$\quad\quad = $ NEUTRON , $\quad\quad\quad\quad\quad\quad\quad$ (98)

and

ENG: $105 =$ SZCZECIN
$\quad\quad = $ TACHYONS . $\quad\quad\quad\quad\quad\quad\quad$ (99)

The correct theory of the neutron and the hypothesis of existence of the SST tachyons which are the foundations of the Scale-Symmetric Theory were formulated in Szczecin.

40. Photon and gluons
According to SST, there is one type of photon and 8 types of gluons and photon in the nuclear strong fields (i.e. fields with internal helicity) behaves as gluon.
So there should be

ENG: $88 =$ PHOTON (i.e. 1)
$\quad\quad = $ GLUONS . (i.e. 8 so the plural noun) . $\quad\quad\quad\quad$ (100)

41. The number 30 in the Wow! signal

ENG: $30 =$ S.K.
$\quad\quad = 1 + 6 + 1 + 0 + 1 + 9 + 4 + 8$ (it is from the Pole date 16-10-1948)
$\quad\quad = $ BIBLE
$\quad\quad = $ ARK
$\quad\quad = $ EAGLE . $\quad\quad\quad\quad\quad\quad\quad$ (101)

We have also

$1 + 9 + 4 + 8 = 22$ and $2 + 2 = 4$
$1 + 0 = \quad\quad\quad\quad\quad\quad = 1$
$1 + 6 = \quad\quad\quad\quad\quad\quad = 7$

which leads to

$41 / 7 = 5.8571… \approx \pi + e = 5.8598… ,$ $\quad\quad\quad$ (102)

where $\pi = 3.14159…$ and $e = 2.71828….$

Notice also that the sum of the distinguished here numbers 22 and 19, which can relate to the years $_{20}22$ and $_{20}19$, is 41. Notice also that

$22 / 7 \approx \pi .$ $\quad\quad\quad\quad$ (103)
$19 / 7 \approx e .$ $\quad\quad\quad\quad$ (104)

42. The Titius-Bode (TB) law/rule in the Wow! signal

In the Scale-Symmetric Theory, the TB law/rule is very important. It defines radii of allowed orbits

$$R_i = A_i + d\ B_i ,\tag{105}$$

where the A_i and B_i are constant values while d are the TB numbers.

The TB law/rule concerns the nuclear strong and electroweak interactions in baryons [2], the solar system [16] and the neutron black holes [20]. Also the TB numbers appear many times because they define the radii and masses of the tori of the fundamental objects with the 10, 26, 58 and 122 degrees of freedom [2], they are used to describe the four-object symmetry [3], and so on.

Below we show that all the lower values in the Wow! signal lead to the Titius-Bode law/rule so it indeed is very important.

We have

ENG:
(6 + 7)·2 = 26 = 26 = BODE
(14 + 15)·2 = 58 = TB (22) LAW (36)
(30 + 31)·2 = 122 = STAR (58) ORBIT (64) (i.e. the orbits around the Sun and the
                                                                                    neutron "black holes")
(19 + 20)·2 = 78 = TB (22) RULE (56)
(5 + 6)·2 = 22 = TB .   (106)

The numbers 6, 14, 26, 30, 19 and 5 are the lower values in the Wow! signal while the numbers 26, 58 and 122 represent the similar objects i.e. neutrinos, cores of baryons and the core of the Protoworld (the Amma's egg).

The sum of the elements containing TB is $158 = 58 + 78 + 22$.

On the other hand, we have

ENG: 158 = TRANSITIONS (between the TB orbits [2], [20]) .   (107)

We also have

ENG: 98 = TITIUS
         = PROTON
         = INDEPENDENCE
         = ALPHA (38) AND (19) OMEGA (41) ,   (108)

i.e. the internal structure of the proton is most important and there acts the TB law [2] – it is the A-alpha and Ω-omega of particle physics and cosmology.

There also is

ENG: 58 = STAR
         = TB (22) LAW (36) .   (109)

Notice that first names of Titius and Bode are the same i.e. Johann so the initials are JT and JB so we have

$$(\underline{26} + 27) \cdot 2 = 106 = \text{JT-JB (42)} \ \text{ORBIT (64)} . \qquad (110)$$

Can we assume that the very high correlation between the Wow! signal and the TB law/rule is a chance? No, because probability of such a chance is practically equal to zero.

43. Spacetime

ENG: 186 = HIGGS-FIELD (86) INFLATION
    = (100)EINSTEIN (95) SPACETIME (91)
    = TORUS (93) + TORUS (93) (i.e. the neutrino-antineutrino pairs the
                            Einstein spacetime consists of)   (111)

i.e. the Einstein spacetime was created due to the SST inflation.

In SST, there is the two-component spacetime and 7 (it is the number of Jesus [13]) parameters: 1 parameter concerns the Einstein spacetime and 6 the SST Higgs field [2] (we can call it also the Sylwester-Kornowski (SK) Higgs field) so we have 1 and 6 i.e. 16 (it is the number of God [13]) – on the other hand,

ENG: $16 = P$ (as Parameters).   (112)

44. The Dogon cosmos

ENG: 133 = EVOLUTION
    = CLOSED (58) SPIRAL (75)
    = INFLATION (100) SEED (33)
    = PO (31) + GRAVITY (102) (the Dogon seed Po is a neutrino in SST)
    = NEUTRON (107) + GOD (26)
    = NUCLEONS (103) + ARK (30)
    = COLLAPSE (83) + EGG (19) + PO (31)
    = COSMOS (84) MODEL (49)
    = THREE (56) LOOPS (77) (the three basic loops associated with the basic
                            tori: the ratios of radii are: 1 : 2/3 : 1/3 [2])
    = THE-END-OF (77) LIGHT (56)
    = COLLAPSE (83) + EGG (19) + PO (31) (and so on) ,   (113)

and

ENG: 112 = AMMA (28) + COSMOS (84)
    = ROTATION .   (114)

According to the Dogon myth [12], Amma inside the egg was as rotational motion – at that time the seed Po (according to SST, it was a new neutrino) was created. Amma broke the Amma's egg (the bang of sky – see (79) and (80)) and got out of it as a whirlwind.

Our Universe inside the Amma's egg was without time (i.e. timeless). On the other hand, according to SST, the very early Universe inside the core of Protoworld (the Amma's egg) was the two loops (twins) composed of the neutron "black holes" [3] in which each neutron was at the rest in relation to others – the absence of relative motions of neutrons means that initially neutrons were timeless (but their components are moving all the time so time inside neutrons is going).

Emphasize that there was the inflation and much latter the bang of sky i.e. the bang of the Amma's egg (see (79) and (80)). The condensate before the inflation was also timeless.

According to the Dogon myth, vortex motion, spiral motion and motion in closed spiral (as in a torus) are characteristic for all particles and the Universe as a whole. Let us emphasize that the word "Po" means a spiral motion that can be curled into loop so there are both the spiral and spinning motions.

According to SST, the speed $c = 3 \cdot 10^8$ m/s of the Einstein spacetime (Es) as a whole is on its equator near the stable boundary of the Cosmos – it defines the rotation of the inner Cosmos (the Universe expands in the Cosmos [3]). In centre of the Cosmos there are only chaotic motions of the Es components – of course, it concerns the ground state of the Es.

The Dogon tribe says that the content of the Po-tolo star (i.e. Sirius B which is a white dwarf) has been thrown out in the form of elements similar to the seed Po. On the other hand, SST says that electrons, cores of neutrons and protons are similar to the electron-neutrino and muon-neutrino i.e. there is torus and central condensate but, of course, masses and sizes are different [2].

In the Dogon myth is that the Po (i.e. the neutrinos in SST) symbolizes the beginnings of matter. All things created by Amma are created by successively adding identical elements (i.e. matter is made of the seeds Po, i.e. in SST they are made of the neutrinos or/and pairs of neutrinos).

Did God lead to the pre-inflation collision described in the SST or was He the result of inflation? I can't answer this question. God probably was the result of inflation. But He contributed to the creation and expansion of our Universe within our Cosmos with a fixed size determined by inflation.

In the Dogon myth, the smallest and biggest things, so the Cosmos as a whole also, are called the Po. The Dogon tribe says that all things created by Amma were in Po (i.e. in Cosmos), they grew (according to SST, associations of the neutron "black holes" transformed into galaxies because of inflows of dark energy [3]) but the Po (Cosmos) did not enlarge its size.

The word "AMMA" has the mirror symmetry which is very important in SST [21].

The conclusion is that the Dogon tribe certainly was visited by extraterrestrial civilization because their myth is compatible with the Scale-Symmetric Theory.

45. Cosmological story once more

$\Sigma A_i = 100 =$ **inflation**

$\Sigma B_i = 412 =$ **magnetic-Amma (100) rotation (112) decreases (79) pressure (121)**

$\Sigma C_i = 222 =$ **fag (14) of (21) dark-energy (108) inflow (79)** (i.e. the neutron "black holes" and their associations increased their volume because of the inflow of dark energy into a region with decreased pressure)

$\Sigma\ C_i = 222 =$ **new (42) bang (24) of (21) two (58) loops (77)** (i.e. the new bang after the inflation i.e. after the big bang; initially, the early Universe was the two loops composed of the neutron "black holes") . (115)

46. The electroweak interaction in the SST and in the Dogon myth and the Amma word

According to SST [2], mass of central condensate/scalar in the core of baryons is about $4/3$ times higher than the mass of the torus/charge which is $X = 318.2955$ MeV. Such mass, i.e. $Y \approx 4\ X\ /\ 3 = 424.394$ MeV, is $f = Y\ /\ m_{pair,condensates} = 831.48$ times higher than the total mass of two condensates/scalars in a virtual electron-positron pair $m_{pair,condensates} = 0.510407$ MeV. In the core of baryons, the two virtual scalars are smeared along the loop with circumference $l_o = 2\pi \cdot 2A/3$, where $A = 0.6974425$ fm is the equatorial radius of the core. It means that energy equal to Y is a spiral/compact-solenoid containing 831.48 loops. When such spiral interacts electromagnetically at high energy then its length increases

$$F = (\alpha_{strong} + \alpha_{el\text{-}mag,high\text{-}energy}) / \alpha_{strong} = 1 + 1\ /\ 127.67 = 1.007833 \text{ times} , \quad (116)$$

where $\alpha_{strong} = 1$ is the coupling constant for the nuclear strong interactions via loop [2] while $\alpha_{el\text{-}mag,high\text{-}energy} = 1/127.67$ is the fine-structure constant for energies above 91.2 GeV [22], i.e. the length L of the spiral is   .

$$L = F\ f\ l_o = 3510.18\ A \qquad (117)$$

as it is in SST [2].

Neutrinos (i.e. the seeds Po in the Dogon myth) behave in a similar way to the core of baryons but the neutrino-antineutrino pairs the core consists of we must replace with the entanglons. So we can apply the same model i.e. we obtain the result $3510.18\ r_{neutrino}$. The effective radius of neutrino is

$$r_{neutrino,effective} = 3.926 \cdot 10^{-32}\ m . \qquad (118)$$

Uninterrupted unrolling and rolling of the spiral cause that the field around the neutrino is turbulent which resembles fermentation.

Due to the unrolling-rolling around the neutrinos and cores of baryons, there is created the SST Higgs potential.

We have

ENG: 209 = UNROLLING (122) – ROLLING (87)
        = ELECTROWEAK (118) THEORY (91)
        = ELECTROWEAK (118) HELICITY (91) .   (119)

The effective radius of neutrinos and their pairs (see (118)) leads to the scalar Y which in SST is responsible for the weak interactions [2]. Notice also that the SST Higgs potential concerns also electric charges (see (117)) so the electrons as well [22].

We also have

ENG: 209 = UNROLLING (122) – ROLLING (87)

$$= \text{QUANTUM (107) GRAVITY (102)}, \qquad (120)$$

i.e. the neutrinos, which are the smallest masses with gravitational field defined by the constant G, emit and absorb the groups of entanglons which are responsible for quantum entanglement. But emphasize that the SST Higgs potential described here is an additional field to the gravitational field defined by G.

We also have

ENG: 106 = Po (31) + spiral (75) (four such objects with parallel spins (i.e. four
$$\qquad\qquad\qquad\qquad\qquad\qquad \text{neutrinos) are the mainstream graviton)}$$
$$\qquad = \text{graviton}$$
$$\qquad = \text{order (60) + chaos (46)}. \qquad\qquad (121)$$

and

ENG: 116 = neutrino
$$\qquad = \text{core (41) + spiral (75)}$$
$$\qquad = \text{confusion}. \qquad\qquad (122)$$

According to Dogon tribe, life in Po (in SST it is a neutrino) thanks to the Amma word (I think this word is "SPIRAL") is similar to fermentation.

47. Fermentation in Dogon myth

ENG: 140 = fermentation
$$\qquad = \text{helicity (91) model (49)}$$
$$\qquad = \text{photon (88) mass(52)} \text{ (photon is the rotational energy of the neutrino-}$$
$$\qquad\qquad\qquad\qquad\qquad\qquad \text{antineutrino pairs which can be entangled or}$$
$$\qquad\qquad\qquad\qquad\qquad\qquad \text{confined – the confinement follows from the}$$
$$\qquad\qquad\qquad\qquad\qquad\qquad \text{unrolling-rolling effect i.e. from creation of the}$$
$$\qquad\qquad\qquad\qquad\qquad\qquad \text{SST Higgs potential)}$$
$$\qquad = \text{Orion (71) smith (69)} \text{ (see the Dogon myth)}. \qquad (123)$$

48. Scale-Symmetric Theory (SST) versus the Standard Model (SM) and the Cosmological Standard Model (CSM)

Here we use the "English" numerology to show the decay of the Standard Model (SM) into bad and good parts. We use SST to point the parts which are neglected or wrongly defined in SM. Most important is the number $\Sigma\, C_i = 222$ that follows from the Scale-Symmetric Theory.

ENG: 222 = decay (38) of (21) the (33) Standard (81) Model (49)
$$\qquad = \text{good (41) Maxwell (90) theory (91)}$$
$$\qquad = \text{quark (68) model (49) is (28) wrong (77)}$$
$$\qquad = \text{bad (7) electroweak (118) resemblance (97)}. \qquad (124)$$

The lacking parts in SM are as follows

ENG: 222 = fundamental (111) velocity (111) (i.e. the superluminal velocity of tachyons the Higgs field consists of which is $\sim 8 \cdot 10^{88}$ times higher than the speed of light)

= two (58) closed (58) strings (106) (i.e. the superluminal SST entanglon/graviton)

= unique (87) similarity (135) (i.e. the similarity of neutrinos, core of baryons, and core of Protoworld)

= superluminal (161) miracle (61) (i.e. the superluminal quantum entanglement that leads to visible matter and dark matter)

= SK (30) spiral (75) expansion (117) ([23]; see also Paragraph **46**: it leads to the confinement of the neutrino-antineutrino pairs and next to masses of the scalars)

= good (41) classical (79) entanglon (102) (i.e. quantum mechanics has classical interpretation [24])

= electron (92) + entanglement (130) (it leads to the correct theory of electron [2])

= new (42) bang (24) of (21) two (58) loops (77) (see Paragraph **45**) .

(125)

Emphasize that the spin-zero dark-matter particle with a mass of 727.43 MeV [25] (we can call it "**magneton**" or "**darkon**") interacts gravitationally and via the dark-matter strings created on the torus of the particle, so it is very difficult to detect it. The DM particle is built of K^2 entangled loops. In each DM loop are exchanged the neutrino-antineutrino pairs so in its centre is created a condensate – it causes that the DM particle has 56 degrees of freedom, the same as the non-rotating-spin core of baryons. Notice also that the core of the DM Protoworld has 122 degrees of freedom.

49. Summary

The 335P/Gibbs comet was proposed as the source of the Wow! signal because the three objects, i.e. the source of the Wow! signal, the 335P/Gibbs and the Tau Sagittarii (the star), were placed near the some direction [17].

The 335P/Gibbs is a comet which will be in perihelion in August 12, 2022 [18] i.e. 45 years after the August 15, 1977 Wow! signal. On the other hand, we showed here that something associated with the signal will happen in 2022 so it means that probably an emitter placed by an Extra-Terrestrial Intelligence (ETI) on the 335P/Gibbs was in 1977 and will be in August 2022 the source of some Wow! signals.

Notice also that

1687 (first edition of the Newton's Principia) + 335 (335P/Gibbs) = 2022.

Maybe a transmission will concern gravitation?

But why the 1977 Wow! signal was not emitted when 335P/Gibbs was in perihelion (its last orbital period will be 6.77 years [18])? A probable explanation is that an Extra-Terrestrial Intelligence tried to show us the direction to their home i.e. the direction towards the Tau Sagittarii. Probably the ETI can communicate with an apparatus on the 335P/Gibbs comet.

Should we send a message towards the comet or land on it to obtain important information concerning science and/or advanced technologies?

The Wow! signal suggests that the mainstream string theory (M-theory) must be radically reformulated. In the string theory, we at first select and describe a shape/vacuum-state for the extra dimensions of spacetime. Each of the shapes corresponds to a different collection of particles and forces. But the applied higher dimensions of spacetime and different vibrations of single string cause that the string theory is disappointing because of tremendous number of possible solutions. On the other hand, in the Scale-Symmetric Theory, the two-component spacetime consists of the SST Higgs field (it consists of the ball-like non-gravitating tachyons) and the Einstein spacetime (it consists of the neutrino-antineutrino pairs). The Einstein-spacetime components consist of the identical closed strings. Due to the dynamic viscosity of the tachyons and closed strings, in the SST spacetime are created stable and meta-stable manifolds. Instead the higher spatial dimensions and vibrations, the SST manifolds differ in number of degrees of freedom. Here we showed that the numbers in the Wow! signal lead to degrees of freedom of the SST manifolds – most of them are tori with ball-like central scalar.

Why the Wow! signal first of all points the phase transitions of the SST inflation field, discoverer of the Planck constant and the neutrinos? According to SST, the Planck constant appeared as the first physical constant at the beginning of the SST inflation [2]. There were created from the components of the inflation field the spin-1 binary systems of closed strings (the entanglons) which are responsible for the quantum entanglement [2]. Next, there appeared neutrinos which are built of the entanglons [2]. Neutrinos are the lightest gravitating objects which define the gravitational constant G [2]. Photons and gluons are carried by binary systems of neutrinos whereas all other gravitating particles are built of the binary systems of neutrinos [2] – it is the reason that the Wow! signal points discoverer of the Planck constant and the neutrinos i.e. points the most fundamental physical constant and the fundamental gravitating particle. But most important in the Theory of Everything are the phase transitions of the SST inflation field so they should be and are encoded in the Wow! signal. The key to fully understanding our Cosmos is to accept the fact that formula (18) defining the degrees of freedom of objects created in the main phase transitions and which appears in the interpretation of the Wow! signal is the foundation of theoretical particle physics and cosmology.

Mathematical theories in physics, not based on classical physical phenomena (and sometimes omitting physical phenomena at all) have little or no physical value.

A theory that cannot explain what determines the masses, charges and spins of particles and the nature of dark matter requires radical changes and not only cosmetic corrections.

A revolution in physics is necessary and must lead to degrees of freedom encoded in the Wow! signal.

We showed here that God is a super-mind which is a dark-matter structure.

Here we showed that Wow! signal is a miracle alone.

W. H. Bickers used numerology to decode a religious message in the Wow! signal [11].

Can we manipulate people using nouns-numbers? Of course, this is possible in individual cases. But when a consistent theory can be associated with a large number of words-numbers the probability of manipulation of the prophecy is very small.

Pope John Paul II (Pole Karol Wojty³a) asked scientists whether they see God in science. And they said no. But we see that they were very wrong. In SST, I assumed that spontaneous creation of new neutrino started the expansion of the very early Universe but the Wow! signal and the Dogon myth suggest that it was due to very hard work of AMMA/GOD.

1920 (the year of birth of Pope John Paul II)
$+\ 99$ (ENG: 99 = JOHN-PAUL-2 = PHYSICS)
$=2019$.   (126)

and

1978-10-16 (it is the starting date of Pope John Paul II (i.e. JP2): ENG: $10 = J$ and $P = 16$; notice that ENG: $JP = 26 = GOD$ and ENG: $TWO = 58 = STAR$; also we have: $1+9+7+8+1+0+1+6 = 33$ i.e. the age Jesus-Christ was crucified)

+41 years (ENG: $41 = OMEGA$ i.e. an end; but also $41 = CORE$ i.e. of baryons)

= 2019-10-16 (i.e. 71 from 1948-10-16: ENG: $71 = PLEIADES$: see (49), (50)). (127)

There is distinguished the date October 16, 2019 and we have

ENG: $367 = OCTOBER$ (78) SIXTEEN (96), TWENTY-NINETEEN (193)
$= Sylwester-Kornowski$ (281) HIGGS-FIELD (86) .   (128)

So maybe it will be the starting date of the SK Higgs field? But let us note that the most difficult task in prophecy is to place events in time. Sometimes it is possible because the Universe is cyclical (our Cosmos has stable boundary [3]). This means that sometimes stories are repeated because quantum mechanics has a classical interpretation due to the superluminal binary systems of closed strings from which the Cosmos is built.

We see that

ENG: $\Sigma\ B_i = 412 = 367 + 26$ ($26 = GOD$) $+ 19$ ($19 = EGG$) .   (129)

Reductionism concerns the phase transitions of the SST Higgs field while holism concerns the superluminal quantum entanglement.

Here I used numerology to show that physics, cosmos, mythology and religion should be considered as a coherent whole.

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