The Projection Theory Part I

Supplement 1
A new definition of time and the calculation of the speed of light based on the electron radius r_e

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Abstract

In the summary of the [1]main part of this work it was stated that all physical constants investigated there, like G, μ_0 ε_0 or α can be represented over only three basic values, i.e., a minimum length s_{min}, minimum time t_{min} and the radius of the electron r_e, as well as additionally the dimension factors f_{D4} and f_{D42} worked out especially for the projection theory. With this supplementary work, we have now succeeded in reducing the number of basic values to a single one, namely r_e, since the other two can be derived quite easily from this quantity.
The minimum length s_{min}, which was previously calculated via h and therefore corresponded from the value of the Compton wavelength for the proton, is now replaced by $s_{min} = r_e\ 2\pi^2$.
The values of s_{min} old and new have a relative deviation of 1.6 10^{-6}, which is acceptable, but still subject to further consideration.
For the conversion of t_{min} to a r_e-based expression, one must remember the important principle of projection theory that time in our projective reality corresponds to a length in the 4th dimension. A length in the third dimension can be transformed into a four-dimensional one simply by applying the power 4/3. It was postulated therefore for our basic values:

$$r_e^{4/3} \equiv t_{min} \quad \Longrightarrow \quad r_e^{4/3} = f_{time}\, t_{min}$$

The task was to calculate the proportionality constant f_{time} in a simple and independent way. In fact, this was accomplished in three ways.
The first formula is based exclusively on π and the above-mentioned dimension factors. The second equation is a pure number construct, i.e., a geometrical series which contains only powers of ten and the factor 60 which is important for our time calculation.

The third formula derives in the basic structure from the second one, but contains the important conversion factors of our time division system (1440 min/d, 86400 s/d) and a time reference from cosmology, the sidereal year in sidereal days. With these proportionality constants, the speed of light could be calculated with a relative error of 2 10^{-7}, 1 10^{-9} and 5 10^{-11} in the order of the above enumeration of the factors.

A The total construct based on π.

The schematic drawing (fig. 8) listed in the [1]main article on p. 42 is supplemented at this point by the four-dimensional bodies' tesseract and hypersphere and all transfer factors (see fig. 1).

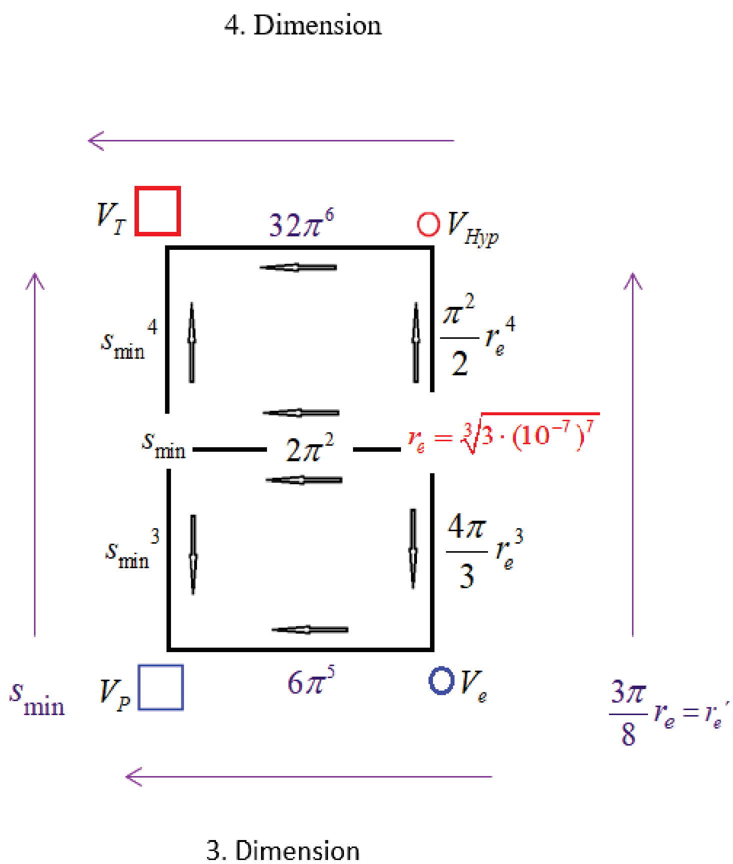


Fig. 1

V_p	volume of the proton
V_e	volume of the electron
V_T	volume of a hypothetical 4-dimensional proton (Tesseract)
V_{Hyp}	volume of a hypothetical 4-dimensional electron (Hypersphere)
r_e	radius of the electron
s_{min}	length of the cubic proton

If one accepts the π-based relations between the three- and four-dimensional volumes shown in Fig. 1, the astonishing fact becomes clear that only one length, namely r_e, still has to be determined numerically, since s_{min} results from $r_e\ 2\pi^2$, so that with t_{min} and r_e only two basic quantities are fixed.

We now have two slightly different values for the minimum length, and we will only take s_{min} into account in the following calculations.

$$s'_{\min} = \lambda_{cp} = 1{,}321409855[m]$$
$$s_{\min} = r_e 2\pi^2 = 1{,}321407678[m]$$
$$\Delta_{rel} = 1{,}6 \cdot 10^{-6}$$

B The calculation of the minimum time t_{min} and the speed of light c

It was to be assumed that it could be quite possible to derive also still t_{min} from r_e.
This was achieved with the equation (SU.1) below, which has in the numerator the transfer factors from the third to the fourth dimension (see fig. 1), i.e., the factor s_{min} between cubic proton and tesseract and the factor r_e' between spherical electron and the hypersphere, and in the denominator the transfer factors, between the spherical and the cubic volumes within the same dimension, $6\pi^5$ and $32\pi^6$, respectively. To complete the equation, we additionally need π and the obviously unavoidable dimension factors f_{D4} and f_{D42}.

$$t_{\min}' = \frac{s_{\min} f_{D4}^{\frac{3}{2}} \sqrt[3]{r_e' f_{D42}^{\frac{3}{2}}}}{\pi \cdot \sqrt[3]{32\pi^6 6\pi^5}} = 4{,}407701676 \cdot 10^{-24} \qquad \text{(SU.1)}$$

The above equation is a pure calculation rule and the lengths s_{min} and r_e must be regarded as dimensionless for the time being.
If we set $s_{min} = r_e 2\pi^2$ and $r_e' = r_e\, 3/8\, \pi$ according to the above scheme, equation (SU.1) can be represented much more simply (see eq. (SU.2))

$$t_{\min}' = \left(\frac{r_e}{\pi}\right)^{\frac{4}{3}} \frac{\sqrt{f_{D4}{}^3 f_{D42}}}{4\pi} = 4{,}407701676 \cdot 10^{-24} \qquad \text{(SU.2)}$$

In Eq. (SU.2), our basic value r_e is present for the first time to the power 4/3, which corresponds to the transfer of our basic length from the third to the fourth dimension and thus to our initial definition of time as length in the 4th dimension.
We therefore define:

$$s^{\frac{4}{3}} \equiv t \qquad \text{(SU.3)}$$

and can now also assign the correct unit, namely seconds to the equation (SO.20b).

$$t_{\min}' = \left(\frac{r_e}{\pi}\right)^{\frac{4}{3}} \frac{\sqrt{f_{D4}{}^3 f_{D42}}}{4\pi} = 4{,}407701676 \cdot 10^{-24}[s] \qquad \text{(SU.4)}$$

$$t_{\min_{theo}} = \frac{s_{\min}}{c} = \frac{r_e 2\pi^2}{c} 4,407741565 \cdot 10^{-24} \left[s\right] \tag{SU.5}$$

$\Delta_{rel} = 9 \cdot 10^{-6}$

For a comparison of the above formula with that for another very important basic quantity namely α, we set:

$$f_D = f_{D4}{}^{0,75} f_{D42}{}^{0,25} = 0,9682917246 \tag{SU.6}$$

For the formula (SU.4) we get

$$t_{\min}' = \left(\frac{r_e}{\pi}\right)^{\frac{4}{3}} \frac{f_D{}^2}{4\pi} \left[s\right] \tag{SU.7}$$

$$1/\alpha = k_{pe} \frac{f_{D42}{}^2}{4\pi} \tag{F.2}$$

The comparison with the formula for 1/α (see main part p. 29) now shows an astonishing formal similarity.

Both dimension factors f_{D4} and f_{D42}appear in the formula for t_{min} and give a useful result only in the ratio 3:1, but the relative error obviously caused by f_D is still quite high and we should look for a better way to calculate f_D.

This was achieved quite soon, since we suspected for a long time that besides the all-superior circular number π also the "golden number" φ resp. ϕ, which is always found in the proportions of nature, should play a role in this projection construct.
In fact, the two dimension factors are not in the ratio of integer numbers, e.g. 3:1, as assumed in the first approach, but in the ratio of the two line segments of the golden section and this, however, not in their basic form, but in the power 2/3 or, however, if one takes the square roots of the line segments in the power 4/3, which is already known to us as the transfer code from the third to the fourth dimension.
The symbols φ resp. ϕ are used very differently in the literature, therefore we specify for this work:

$\Phi = 1,6180339887$

$\varphi = \Phi - 1 = \Phi^{-1}$

Thus, we obtain the following formula for f_D':

$$f_D' = f_{D4}^{\varphi^{\frac{2}{3}}} \cdot f_{D42}^{(1-\varphi)^{\frac{2}{3}}} = f_{D4}^{\left(\sqrt{\varphi}\right)^{\frac{4}{3}}} \cdot f_{D42}^{\left(\sqrt{1-\varphi}\right)^{\frac{4}{3}}} = f_{D4}^{0,72556} f_{D42}^{0,27444} = 0,9682962092 \quad \text{(SU.8)}$$

0,9682962039

$$t_{\min}'' = \left(\frac{r_e}{\pi}\right)^{\frac{4}{3}} \frac{f_D'^2}{4\pi} = 4,407742504 \cdot 10^{-24} \left[s\right] \quad \text{(SU.9)}$$

With the above derived substitution of t_{min} by an expression based on r_e, we can now calculate the important basic quantity c in an unusual way.

$$c = \frac{r_e 2\pi^2}{t_{\min}''} = \frac{r_e 2\pi^2 \pi^{\frac{4}{3}} 4\pi}{r_e^{\frac{4}{3}} f_D'^2} = \sqrt[3]{\frac{\pi}{r_e}} \frac{2^3 \pi^4}{f_D'^2} \left[\frac{m}{s}\right] \quad \text{(SU.10)}$$

$$c = \sqrt[3]{\frac{\pi}{\sqrt[3]{3 \cdot 10^{-49}}}} \frac{2^3 \pi^4}{f_D'^2} = 299792401 \left[\frac{m}{s}\right] \quad \text{(SU.11)}$$

c_{Lit} = 299792458 m/s

$\Delta_{rel} = 2 \cdot 10^{-7}$

The result is quite good, the relative error is small and may be, we are obviously on the right track with this approach, but there is, as we will demonstrate in the following, an even much better way to calculate t_{min} from r_e, if we link the "pseudo time" $r_e^{4/3}$ and the minimum time of our projection system t_{min} directly via a proportionality constant (f_{time}).
For this we have to rearrange the equation (SU.9) only slightly. The fraction on the right side of Eq. (SU.12) now represents our proportionality constant,

$$t_{\min}'' = \frac{f_D'^2}{4\pi^{\frac{7}{3}}} r_e^{\frac{4}{3}} \quad \text{(SU.12)}$$

which, however, represents a value <1. Since such values are usually not very descriptive, we choose as conversion factor the reciprocal value so that applies:

$$r_e^{\frac{4}{3}} = f_{time} t_{\min} \quad \text{(SU.13)}$$

$$f_{time} = \frac{4\pi^{\frac{7}{3}}}{f_D'^2} = 61,668006 \left[\frac{m^{\frac{4}{3}}}{s}\right] \quad \text{(SU.14)}$$

Finally, we found a second way to calculate this constant independently of the equation (SU.14), with the following formula:

$$f_{time_{60}} = 60 + \frac{10^2}{60} + \frac{10^{-1}\left(1-10^{-1}\right)^2}{60} + \frac{\left(10^{-2}-10^{-3}\right)^2}{60} \qquad \text{(SU.15)}$$

A + B + C + D

The summand A represents the base of our time calculation 60 (60 s/min; 60 min/h) and B corresponds to the conversion from the decadic to the sexagesimal system. The summands C and D are binomial formulas, whereby in the multiplied form it becomes clear that it concerns a geometrical series from six fractions with continuously descending decimal powers of 10^{-1} to 10^{-6} in the numerator and in each case the number 60 in the denominator.

$$f_{time_{60}} = 60 + \frac{10^2}{60} + \frac{10^{-1} - 2\cdot 10^{-2} + 10^{-3}}{60} + \frac{10^{-4} - 2\cdot 10^{-5} + 10^{-6}}{60} \qquad \text{(SU.15)}$$

A B C D

It is furthermore evident that applies

$$D = C\cdot 10^{-3} \qquad \text{(SU.16)}$$

so that we can give (SU.15) in a reduced form.

$$f_{time_{60}} = 60 + \frac{10^2}{60} + 1.001\frac{\left(1-10^{-1}\right)^2 10^{-1}}{60} = 61,66801801\left[\frac{m^{4/3}}{s}\right] \qquad \text{(SU.17)}$$

A + B + C´

This equation has a clear reference to the time, since except the powers of ten only the number 60, which is to be considered as important basic size of time calculations, arises in this formula. Since tmin is a quantity from projection theory and thus probably unknown to most physicists

$$t_{\min}' = \frac{r_e^{\frac{4}{3}}}{f_{time_{60}}} = 4,407741561\cdot 10^{-24}\left[s\right] \qquad \text{(SU.18)}$$

we supplement the check of the quality of the newly won proportionality constant by the calculation of the speed of light, which is of course a very familiar natural constant for every physicist.

$$c = \frac{s_{\min}}{t'_{\min}} = \frac{2\pi^2 r_e f_{time_{60}}}{r_e^{\frac{4}{3}}} = \frac{2\pi^2 f_{time_{60}}}{\sqrt[3]{r_e}} \left[\frac{m}{s}\right]$$

(SU.19)

$$r_e = \sqrt[3]{3 \cdot 10^{-49}}$$

$$c = f_{time_{60}} \frac{2\pi^2}{\sqrt[3]{\sqrt[3]{3 \cdot 10^{-49}}}} = 299792458,3 \left[\frac{m}{s}\right]$$

(SU.20)

$$\Delta_{rel} = 1 \cdot 10^{-9}$$

The result of the calculation of c by means of Eq. (SU.20) is excellent. The relative error compared with the calculation by means of eq. (SU.11) could be reduced by the factor 100, although the calculation of the time factor f_{time60} took place completely independently of the previous calculation bases, i. e. is based quasi on a "number play", which is based, however, on the number 60 so important for our time calculation.

The equation (SU.20) contains only numbers and no more symbols for physical quantities, which of course makes the recognition of the physical dimension (here velocity) impossible. Such equations are gladly dismissed by established physicists as nonsensical numerology and that they are, if one cannot present an exact derivation, which in the present case, however, was presented point by point.

Now, we can note the astonishing fact that our entire projective world is defined by a single, moreover highly astonishing physical value, namely by

$$r_e = \sqrt[3]{3 \cdot 10^{-7^7}} = [m]$$

which in turn is derived from the also remarkable volume of the electron $4\pi\ 10^{-49}$ m³
Although Eq. (SU17) already leads to an excellent result, there is another may be even better way to calculate f_{time}, which is characterized by the fact that it is not a purely mathematical construct as above, but that here, in addition to the 60, other time-relevant factors are included in the calculations, namely the conversion factors of the days (d) into hours (h), minutes (min) and seconds (s).

f_{u1} 24 h/d
f_{u2} 60 · 24 min/d
f_{u3} 3600 · 24 s/d

Finally, the sidereal year, measured in sidereal days (a_{sid}), is added as another highly interesting quantity from cosmology.

Sidereal days and years are determined with the reference to a faraway ideally resting point (fixed star). In other words, one could state that a very distant observer precisely fixes points on the globe or the orbit of the Earth and measures their periodic returns.
Tropical day and tropical year, on the other hand, are based on the subjective observation of an earth-bound observer and are coupled with the slightly fluctuating precessional movements of the earth's axis and are thus also subject to slight variations. Consequently, it is consistent that the more "objective" and constant sidereal year and not the tropical year is used in the following calculations.
But also, the numerical value for the sidereal year is not constant over the millennia, because by the tidal friction with the moon the rotation speed of the earth decreases and the length of the sidereal day increases accordingly. Therefore, the sidereal year needs a fixed date for which the given value is valid. We will talk about this phenomenon in detail further below.

$a_{sid} = 366{,}2563632\ d_{sid}/Y$ 1. January 2000

Y = Orbital period of the earth around the sun (1 year)

We gain a useful equation for the calculation of the temporal proportionality factor by modifying the summand C' in Eq. (SU.20) by means of the above-mentioned quantities as follows:

$$f_{time_a} = \underbrace{60}_{A} + \underbrace{\frac{10^2}{60}}_{B} + \underbrace{1.001\frac{n\left(a_{sid} - 366{,}25\right) + a_{sid} - \frac{n}{160}}{f_{u3} \cdot \pi}}_{C''} \left[\frac{m^{4/3}}{s}\right] \qquad \text{(SU.21)}$$

Behind this calculation are the following considerations:

Neither the tropical nor the sidereal year can be inserted as an integer into the orbital cycle of the earth around the sun. In the tropical year the excess is a little less in the sidereal year a little more than ¼ day per cycle.

$a_{trop} = 365{,}2421905\ d_{trop}/Y$

$a_{sid} = 366{,}2563632\ d_{sid}/Y$

As is well known, the ¼ days are balanced by leap years at intervals of 4 years. With the tropical year, we always subtract an amount of about 0.00781 d/Y too much by this process, so that every 1/0.00781 ~128 years a leap year must fail. With the sidereal year, however, we subtract 0.00636 days too little per year, so that we need consequently as correction approx. every 1/0.00636 ~157 years a large leap year, in which 2 days are subtracted in each case. We can fix this big leap year on 156 or 160 years. Since the sidereal year does not play a role for our calendar, the period for the big leap year is not fixed officially. We could determine however with our computations that useful results could be obtained only with a definition on all 160 years.

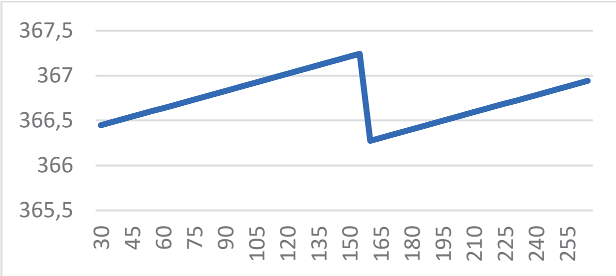


Fig. 2 Calculation of the numerator of the summand C" in Eq (SU.21)

This is expressed in the saw tooth function shown in fig. 2 and is taken into account in Eq. (SU.21) by the summand -n/160, the value of which may only be entered into the equation as a natural number and, provided that n is not a multiple of 160, flows into the equation in each case rounded down. The variable n stands for the freely selectable period in years for which the calculation is to apply.

The calculated values do not represent new year lengths for the sidereal year, but only reflect the shift between calendrical and stellar year, which arises because no continuous, but a periodical adjustment to the integer calendar years takes place. It is already remarkable that just this latent time leads us to the time factor, or differently formulated, that this kind of "hidden" time leads us to the mystery of time.
In principle, n can be arbitrary, but this is no expedient, because we want to establish a special relation to our time system with the above equation. In fact, only with the above-mentioned time factors f_{u1} and f_{u2} meaningful and partly spectacular results are obtained.

Of special importance is the conversion factor f_{u3}, which always appears in combination with the obviously unavoidable π in the denominator of the modified summand C'.
But also factor f_{u2} plays an important role, because the resulting calculation (see eq. (SU.22) of the proportionality constant, which we now want to call f_{timea} to distinguish it from f_{time60} calculated above, leads to a superior result in the calculation of c.

$$f_{time_a} = 60 + \frac{10^2}{60} + 1.001\frac{f_{u2}\left(a_{sid} - 366,25\right) + a_{sid} - 9}{f_{u3} \cdot \pi} = 61,6680179576765\left[\frac{m^{4/3}}{s}\right] \qquad \text{(SU.22)}$$

$$c = \frac{2\pi^2 f_{time_a}}{\sqrt[3]{r_e}} = 299792458,0146\left[\frac{m}{s}\right] \qquad \text{(SU.23)}$$

$$\Delta_{rel} = 5 \cdot 10^{-11}$$

The already very small error from the calculation with f_{time60} is reduced further by a factor of about 20.
One could argue that this extremely small error is negligible, but as we will see later, this is not the case. Rather, one should argue conversely that this deviation is probably within the range of

the observational error in the astrophysical measurement of the sidereal year. We now determine with the theoretical time factor, which can be calculated very exactly by transformation of eq. (SU.20), the corrected value of $asid_{2000c}$

$$f_{time_{theo}} = \frac{c\sqrt[3]{r_e}}{2\pi^2} = 61{,}668017954673\left[\frac{m^{\frac{4}{3}}}{s}\right] \tag{SU.24}$$

In order to make the equation necessary for the calculation somewhat clearer we set:

$$f_{time_{theo}}{}' = f_{time_{theo}} - 60 - \frac{10}{6} \tag{SU.25}$$

and get first in general

$$a_{sid_n} = \frac{\frac{f_{time_{theo}}{}'}{1{,}001} f_{u3}\cdot\pi + n\cdot 366{,}25 + \frac{n}{160}}{(n+1)}\left[\frac{d_{sid}}{y_{sid}}\right] \tag{SU.26}$$

and for n = f_{u2}

$$a_{sid_{2000c}} = \frac{\frac{f_{time_{theo}}{}'}{1{,}001} f_{u3}\cdot\pi + f_{u2}\cdot 366{,}25 + 9}{f_{u2}+1} = 366{,}2563626\left[\frac{d_{sid}}{y_{sid}}\right] \tag{SU.27}$$

The corrected value deviates from the communicated observation value by $6 \cdot 10^{-7}$ d or 5/100 s per orbit around the sun, which in our opinion is quite within the range of measurement errors for astronomical observation quantities. Therefore, for the further calculations we use this corrected value listed in Eq. (SU.27).

Finally, we insert f_{u3}, the smallest of our time relevant conversion factors in Eq. (SU.22) and we get

$$f_{time_{a\,fu1}} = 60 + \frac{10^2}{60} + 1.001\frac{f_{u1}\left(a_{sid_{2000c}} - 366{,}25\right) + a_{sid_{2000c}}}{f_{u3}\cdot\pi} = 61{,}6680179213\left[\frac{m^{4/3}}{s}\right] \tag{SU.28}$$

The calculation of c with the result from eq. (SU.28)

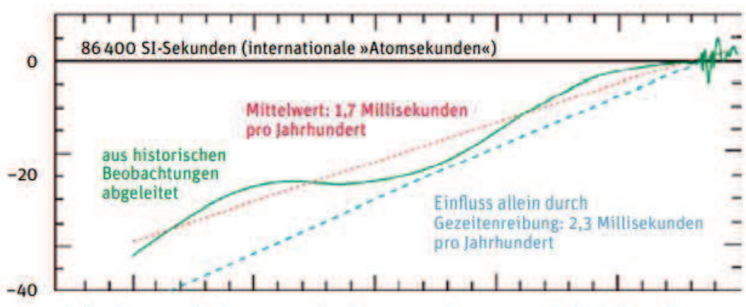
$$c = \frac{2\pi^2 f_{time_{a\,fu1}}}{\sqrt[3]{r_e}} = 299792457{,}8378\left[\frac{m}{s}\right] \tag{SU.29}$$

$$\Delta_{rel} = 5\cdot 10^{-10}$$

gives a relative error for c which is about ten times as large as that with the conversion factor f_{u2}. We conclude, as above, that this error in the calculation with f_{u1} is due to a sidereal year different from $a_{sid2000}$, which we can again calculate using the general formula (SU.27), substituting f_{u1} for n (see Eq. (SU.30))

$$a_{sid\,fu1} = \frac{\frac{f_{time_{theo}}'}{1{,}001} f_{u3} \cdot \pi + f_{u1} \cdot 366{,}25}{f_{u1}+1} = 366{,}256742270858 \left[\frac{d_{sid}}{y_{sid}}\right] \tag{SU.30}$$

We had already pointed out above that the sidereal year measured in sidereal days does not have a constant numerical value over the millennia. It is true that the revolution of the Earth around the Sun remains constant in the periods considered here, but not the rotational speed of the Earth, which is decreasing due to, among other things, tidal friction between the Earth and the Moon. Thus, the scale with which we measure the sidereal year, this becomes larger, so that the nominal value of the sidereal day decreases over the millennia.



[2]fig.3

The delay curves shown in Fig. 3 are based on evaluations of historically documented astronomical events, primarily solar and lunar eclipses, observed and recorded in writing primarily by the Babylonians, Greeks Arabs, and Chinese over the centuries. As can be seen from this figure, the retardation factor f_{ret} averaged over a long period of time is about 1.7 ms per day and century. However, it can also be seen that it is subject to significant fluctuations over the centuries. In this respect, the idea we want to present now is already very daring.
Namely, we assume that the long-term retardation factor f_{ret} can be calculated exactly by a simple formula, which is based on known quantities of classical physics and our projection theory. This is with it exactly like the sidereal year a part of the total construct which can be described excellently by means of the projection theory. With the Sommerfeld fine structure constant α and the dimension factor f_{D4} worked out in the projection theory, a very simple formula for the retardation factor f_{ret} could be developed quite fast, which is very close to the value obtained from astronomical observations explained above.

$$f_{ret} = \frac{\alpha f_{D4}^{\,4}}{a_{sid_{2000c}}} = 1{,}751147403 \cdot 10^{-5} \left[\frac{s}{d}\right] \tag{SU.31}$$

$$f_{ret_{obs}} = 1,7 \cdot 10^{-5} \left[\frac{s}{d} \right] \quad \text{(SU.32)}$$

Thus, for the sidereal year calculated according to Eq. (SU.30), the distance in years to the reference year 2000 can be calculated very accurately.

$$\Delta Y = (a_{sid_{2000c}} - a_{sid_{fu1}}) \frac{a_{sid_{2000c}}}{a_{sid_{f_{u1}}}} \frac{f_{u3}}{\alpha f_{D4}^{4}} = -5114,6117 \left[Y \right] \quad \text{(SU.33)}$$

The summands were set up in such a way that a negative value results for sidereal years which have a higher value than the reference year, i.e., which fall before the reference year.
Since our reference point is exactly at the beginning of the year 2000, we can convert the above result very simply to the reference point 0 and get: $-5114,6117 + 2000 = -3114,6117 \left[Y \right]$

$$-3114,6117 \equiv 3114,6117 BC$$

For the conversion of the decimal years into days of the Gregorian calendar we must, since 3114 BC was no leap year, insert the usual 365 days of the tropical year.

$$0,6117 Y \cdot 365 d / Y = 223,3 d$$

This leads to the date

⟶ **August 11, 3114 BC**

Why this date is so special can be seen from the Wikipedia article on the Mayan calendar inserted below and will not be commented on here.

[3]The Maya calendar

A different calendar was used to track longer periods of time and for the inscription of calendar dates (i.e., identifying when one event occurred in relation to others). This is the *Long Count*. It is a count of days **since a mythological starting-point.**[7] According to the correlation between the Long Count and Western calendars accepted by the great majority of Maya researchers (known as the Goodman-Martinez-Thompson, or GMT, correlation**), this starting-point is equivalent to August 11, 3114 BC in the proleptic Gregorian calendar** or September 6, in the Julian calendar (−3113 astronomical). The GMT correlation was chosen by John Eric Sydney Thompson in 1935 on the basis of earlier correlations by Joseph Goodman in 1905 (August 11), Juan Martínez Hernández in 1926 (August 12) and Thompson himself in 1927 (August 13).[8]

Note

The calculation of physical basic quantities carried out in this work with the support of a cosmological observation quantity (sidereal year) and vice versa even their correction over an important physical quantity like c, as well as the formula for the description of the gravitational interaction between earth and moon (f_{ret}) consisting only of two elementary quantities, indicate that also our cosmos - at least in first approximation in the immediate environment of the earth - is a construct that can be calculated with the basic quantities of our projection theory, which of course clearly contradicts a big bang theory. Further evidence for this hypothesis could be found in the calculation of the masses of the Moon and the Earth. The results of these calculations will soon be published on viXra in the subcategory "Astrophysics".

References

1 **viXra:2104.0093**

2 Spektrum der Wissenschaft 10/2007, S 36 ff

3 Wikipedia, The Maya calendar (last editing on 18 November 2021)