Translated from Russian, source - Scientific forum: Technical and physical-mathematical sciences: a collection of articles based on the materials of the LXIX International scientific and practical conference - № 1 (69). – Moscow.: Publishing house "International Center for Science and Education", 2024. – 90 p. ISSN 2541-8394
https://nauchforum.ru/files/2024_01_11_teh/1%2869%29.pdf

ABOUT THE PLANCK LT SYSTEM OF UNITS
«О ПЛАНКОВСКОЙ LT СИСТЕМЕ ЕДИНИЦ»

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Abstract: The article presents the Planck LT system of units, formed on the basis of the dimensions of physical quantities of the kinematic system of units by R.O. di Bartini. The values of units of measurement, basic constants, conversion coefficients in relation to the International SI and Gaussian system are given, ensuring the transfer of initial data and calculation results between these systems of units without loss of calculation accuracy.

Keywords: Planck system of units LT; kinematic system of LT units; International SI; Gaussian system of units.

Introduction.

The two most common systems of units in use today are the International System of Units (hereinafter SI) and the Gaussian System (hereinafter G). These systems of units have the same dimension of mechanical units, but differ in the dimension of electromagnetic units and, accordingly, a number of coupling equations.

The system of Planck units is not widely used, however, like other natural systems of units, it is used with great success in theoretical physics, since in it the equations are significantly simplified, their writing is freed from unnecessary coefficients.

The kinematic system of units proposed by R.O. di Bartini [2] is based only on two dimensions: spatial extension L and duration in time T. According to [2], units of length and units of time are quantized.

The article presented to your attention presents the Planck LT system of units, formed on the basis of the dimension of the kinematic system of units by R.O. di Bartini, provided that the quanta of length and duration in time are, respectively, Planck length ℓ_P and Planck time t_P, and its relationship with the International SI and Gaussian system. Unlike [2], time is one-dimensional in the proposed system of units.

In the following, we use traditional designations of physical quantities, which, to avoid confusion, we mark with the upper index SI – for the international system of units, G – for the Gaussian system, LT – for the kinematic system of units (according to R.O. di Bartini) and PLT – for the Planck LT system of units, PLTSI – for the identical SI system PLT and PLTG for an identical G PLT system.

1. The PLT system of units is the Planck interpretation of the kinematic system of units R.O. di Bartini.

According to [2, 4], the dimension of mass in the LT system has the form $L^3 \cdot T^{-2}$, i.e. Planck mass $M_P^{LT} = \ell_P^3 \cdot t_P^{-2} = \ell_P \cdot c^2$, where ℓ_P – is the Planck length, $t_P = \ell_P / \mathrm{c} -$ is the Planck time. According to [2] the Planck charge also has a dimension $L^3 \cdot T^{-2}$, respectively $q_P^{LT} = \ell_P^3 \cdot t_P^{-2} = \ell_P \cdot c^2$.

The dimension of the force in the LT [2] system has the form $L^4 \cdot T^{-4}$, i.e. the Planck force $F_P^{LT} = c^4$.

The law of universal gravitation (hereinafter, the coupling equations and the ratio of constants are given in accordance with [10]) for single Planck quantities will take the form

$$F_P^{LT} = G_N^{LT} \cdot \frac{M_P^{LT} \cdot M_P^{LT}}{{\ell_P}^2} = G_N^{LT} \cdot \frac{\ell_P \cdot c^2 \cdot \ell_P \cdot c^2}{{\ell_P}^2} = G_N^{LT} \cdot c^4 \qquad (1)$$

that is, the equality holds only under the condition that Newton's gravitational constant for the LT system $G_N^{LT} = 1$.

Coulomb's law for Planck quantities will take the form

$$F_P^{LT} = k_C^{LT} \cdot \frac{q_P^{LT} \cdot q_P^{LT}}{{\ell_P}^2} = k_C^{LT} \cdot \frac{\ell_P \cdot c^2 \cdot \ell_P \cdot c^2}{{\ell_P}^2} = k_C^{LT} \cdot c^4 \qquad (2)$$

that is, equality is satisfied only if the Coulomb constant for the system LT

$$k_C^{LT} = 1.$$

Planck current is a current carrying one Planck charge in one Planck time – i.e.

$$I_P^{LT} = q_P^{LT}/t_P = \mathrm{c}^3.$$

Equivalent definition: Planck current is a direct current which, flowing in two straight parallel conductors of infinite length, located in a vacuum at a distance of the Planck length from each other, will create between these conductors a force equal to the Planck force for each section of the Planck length, respectively:

$$\frac{F_P^{LT}}{\ell_P} = k_\mu^{LT} \frac{I_P \cdot I_P}{\ell_P} = k_\mu^{LT} \frac{q_P^{LT} \cdot q_P^{LT}}{\ell_P \cdot {t_P}^2} = k_\mu^{LT} \frac{\ell_P \cdot c^2 \cdot \ell_P \cdot c^2}{\ell_P \cdot {t_P}^2} \qquad (3)$$

Thus, equality holds only under the condition that the Ampere constant

$$k_\mu^{LT} = 1/c^2.$$

2. Conversion coefficients between units of the PLT system and units of the Gauss and SI system

To carry out further transformations, we will determine the coefficients for converting the values of mass and electric charges between the PLT system and the G and SI systems.

In SI, as well as G, the Planck mass and Planck length have values:

$$M_P = \sqrt{\frac{\hbar \cdot \mathrm{c}}{\mathrm{G}_N}} \quad \text{и} \quad \ell_P = \sqrt{\frac{\mathrm{G}_N \cdot \hbar}{\mathrm{c}^3}} \qquad (4)$$

That is, Newton's gravitational constant and Planck's mass have, respectively, values:

$$\mathrm{G}_N = \frac{{\ell_P}^2 \cdot \mathrm{c}^3}{\hbar} \quad \text{и} \quad M_P = \frac{\hbar}{c \cdot \ell_P} \qquad (5)$$

A conversion factor is a ratio between different units of measurement that define the same physical quantity, i.e., by definition, it must have an exact value.

The conversion factor $K_{M_P}^{LT-SI}$ (as well as $K_{M_P}^{LT-G}$) there is a ratio of identical values of the Planck mass expressed in units of spatial extent and duration in time to the value in units of mass of the corresponding system of units:

$$K_{M_P}^{LT-SI} = \frac{M_P^{\mathrm{PLT-SI}}}{M_P^{SI}} = \frac{\ell_P^{SI} \cdot {c^{SI}}^2}{\frac{\hbar^{SI}}{c^{SI} \cdot \ell_P^{SI}}} = \frac{{\ell_P^{SI}}^2 \cdot {c^{SI}}^3}{\hbar^{SI}} \quad (6)$$

$$K_M^{LT-G} = \frac{M_P^{LT}}{M_P^G} = \frac{\ell_P^G \cdot {c^G}^2}{\frac{\hbar^G}{c^G \cdot \ell_P^G}} = \frac{{\ell_P^G}^2 \cdot {c^G}^3}{\hbar^G} \quad (7)$$

The Planck charge in SI and G are defined in different ways and have a value, respectively:

$$q_P^{SI} = e^{SI} \big/ \sqrt{\alpha} \quad \text{и} \quad q_P^G = \sqrt{\hbar^G \cdot c^G} \quad (8)$$

The conversion factor K_q^{LT-SI} and K_q^{LT-G} is the ratio of identical quantities (Planck charge) expressed in units of spatial extent and duration in time to its value in units of charge of the corresponding system of units (let's call this value the constant of electric charge):

$$K_q^{LT-SI} = \frac{q_P^{LT}}{q_P^{SI}} = \frac{\ell_P^{SI} \cdot {c^{SI}}^2}{e^{SI} \big/ \sqrt{\alpha}} = \frac{\sqrt{\alpha} \cdot \ell_P^{SI} \cdot {c^{SI}}^2}{e^{SI}} \quad (9)$$

$$K_q^{LT-G} = \frac{q_P^{LT}}{q_P^G} = \frac{\ell_P^G \cdot {c^G}^2}{\sqrt{\hbar^G \cdot c^G}} \quad (10)$$

Now let's rewrite the equations (1), (2), (3) after the conversion in general form using conversion coefficients for SI and G, respectively:

To calculate the gravitational constant:

In SI:

$$\frac{F_P^{LT}}{K_{M_P}^{LT-SI}} = G_N^{SI} \cdot \frac{\frac{M_P^{LT}}{K_{M_P}^{LT-SI}} \cdot \frac{M_P^{LT}}{K_{M_P}^{LT-SI}}}{{\ell_P^{SI}}^2}$$

$$F_P^{SI} = G_N^{SI} \cdot \frac{M_P^{SI} \cdot M_P^{SI}}{{\ell_P^{SI}}^2}$$

$$\frac{c^{SI} \cdot \hbar^{SI}}{\ell_P^{SI^2}} = G_N^{SI} \cdot \frac{\frac{\hbar^{SI}}{\ell_P^{SI} \cdot c^{SI}} \cdot \frac{\hbar^{SI}}{\ell_P^{SI} \cdot c^{SI}}}{\ell_P^{SI^2}}$$

Therefore

$$G_N^{SI} = \frac{\ell_P^{SI^2} \cdot c^{SI^3}}{\hbar^{SI}} = K_{M_P}^{LT-SI} \tag{11}$$

In G:

$$\frac{F_P^{LT}}{K_{M_P}^{LT-G}} = G_N^G \cdot \frac{\frac{M_P^{LT}}{K_{M_P}^{LT-G}} \cdot \frac{M_P^{LT}}{K_{M_P}^{LT-G}}}{\ell_P^{G^2}}$$

$$F_P^G = G_N^G \cdot \frac{M_P^G \cdot M_P^G}{\ell_P^{G^2}}$$

$$\frac{c^G \cdot \hbar^G}{\ell_P^{G^2}} = G_N^G \cdot \frac{\frac{\hbar^G}{\ell_P^G \cdot c^G} \cdot \frac{\hbar^G}{\ell_P^G \cdot c^G}}{\ell_P^{G^2}}$$

Therefore

$$G_N^G = \frac{\ell_P^{G^2} \cdot c^{G^3}}{\hbar^G} = K_{M_P}^{LT-G} \tag{12}$$

To calculate the Coulomb constant:

$$F_P^{LT} = k_C^{LT} \cdot \frac{q_P^{LT} \cdot q_P^{LT}}{\ell_P{}^2}$$

In SI:

$$\frac{F_P^{LT}}{K_q^{LT-SI}} = k_C^{LT} \cdot \frac{\frac{q_P^{LT}}{K_q^{LT-SI}} \cdot \frac{q_P^{LT}}{K_q^{LT-SI}}}{\ell_P^{SI^2}}$$

$$F_P^{SI} = k_C^{SI} \cdot \frac{q_P^{SI} \cdot q_P^{SI}}{\ell_P^{SI^2}}$$

$$\frac{c^{SI} \cdot \hbar^{SI}}{\ell_P^{SI^2}} = k_C^{SI} \cdot \frac{\frac{e^{SI}}{\sqrt{\alpha}} \cdot \frac{e^{SI}}{\sqrt{\alpha}}}{\ell_P^{SI^2}}$$

Therefore

$$k_C^{SI} = \frac{\alpha \cdot c^{SI} \cdot \hbar^{SI}}{{e^{SI}}^2} = \frac{1}{4 \cdot \pi \cdot \varepsilon_0^{SI}} \quad (13)$$

And, accordingly,

$$\varepsilon_0^{SI} = \frac{{e^{SI}}^2}{4 \cdot \pi \cdot \alpha \cdot c^{SI} \cdot \hbar^{SI}} = \frac{{e^{SI}}^2}{2 \cdot \alpha \cdot c^{SI} \cdot h^{SI}} \quad (14)$$

If the reverse transformation is performed, then the dielectric constant of the vacuum for the PLTSI coupling equations will get the value:

$$\varepsilon_0^{PLTSI} = 1/4\pi.$$

In G

$$\frac{F_P^{LT}}{K_q^{LT-G}} = k_C^G \cdot \frac{\frac{q_P^{LT}}{K_q^{LT-G}} \cdot \frac{q_P^{LT}}{K_q^{LT-G}}}{{\ell_P^{SI}}^2}$$

$$F_P^G = k_C^G \cdot \frac{q_P^G \cdot q_P^G}{{\ell_P^G}^2}$$

$$\frac{c^G \cdot \hbar^G}{{\ell_P^G}^2} = k_C^G \cdot \frac{\sqrt{\hbar^G \cdot c^G} \cdot \sqrt{\hbar^G \cdot c^G}}{{\ell_P^G}^2} = k_C^G \cdot \frac{\hbar^G \cdot c^G}{{\ell_P^G}^2}$$

Therefore

$$k_C^G = 1$$

Thus, there are relations:

$$k_C^{SI} = \frac{\left(K_q^{LT-SI}\right)^2}{K_M^{LT-SI}} = \frac{\alpha \cdot c^{SI} \cdot \hbar^{SI}}{{e^{SI}}^2} \quad \text{and} \quad k_C^G = \frac{\left(K_q^{LT-G}\right)^2}{K_M^{LT-G}} = \frac{\left(\frac{\ell_P^G \cdot {c^G}^2}{\sqrt{\hbar^G \cdot c^G}}\right)^2}{\frac{{\ell_P^G}^2 \cdot {c^G}^3}{\hbar^G}} = 1 \quad (15)$$

In other words, the Coulomb constant for any system of units is equal to the ratio of the square of the conversion factor electric charge to the conversion factor mass, i.e. the ratio of square of the constant of electric charge to the Newton's gravitational constant.

Thus, there is a mechanism for the exact ratio of the units of the mentioned systems of units. The only obstacle to performing accurate calculations is the accuracy of determining the Planck length, limited by the experimentally determined value and accuracy of Newton's gravitational constant

$$\ell_P = \sqrt{\frac{G_N \cdot \hbar}{c^3}}$$

Moreover, the latest experimental definitions of G_N give a discrepancy of up to 0.05% of its value. This indicates that there may be undetected systematic errors in various existing methods. Thus, in [14] it is reported that the achieved result of measuring G_N represents two variants, each of which individually has twice the best relative standard uncertainty, but the value of these results lie on the opposite boundaries of the standard deviation of the recommended CADATA value. In addition, based on data obtained from 1985 to 1996 In [3], rhythmic changes in the measurement results of G_N were reliably revealed. Thus, as the authors of this article believe: "It is reasonable to assume that this analysis does not reveal a change in the magnitude of a physical constant - the gravitational constant, but the effect of some factors unaccounted for by researchers that directly or indirectly affect the measurement results," i.e. experimental methods for determining this constant to clarify the value of the Planck length at the present stage are unpromising.

However, in [6] an approach is proposed to refine the Planck length by creating a field of Planck length values using coupling equations [10] and recommended [11] values of physical constants defined as accurate or with significantly greater accuracy than G_N, taking into account the limits of the standard uncertainty of these values. The array of obtained values was processed in accordance with the order of estimation of the standard uncertainty of type A [1]. In addition, a recursive calculation algorithm was used. As a result, the value

$\ell_P^{SI} = 1.61625513959960 \cdot 10^{-35} \cdot m$

with standard uncertainty $u(\ell_P^{SI}) = 2.1 \cdot 10^{-48} \cdot m$

and relative standard uncertaint y $u_r(\ell_P^{SI}) = 1.3 \cdot 10^{-13}$.

Similarly, the value of the fine structure constant has been clarified

$\alpha = 7.29735256928761500 \cdot 10^{-3}$

with standard uncertainty $\mathrm{u}(\alpha) = 1.3 \cdot 10^{-26}$

and the relative standard uncertainty $\mathrm{u_r}(\alpha) = 1.8 \cdot 10^{-24}$.

These values used for further calculations in this article.

3. Clarification of conversion coefficients between the values of SI and G units

In the ratio of SI and G units, the dimensionless value of the speed of light $c^G = 29979245800 \cdot cm/s$ is included as a coefficient. For the most accurate transfer of source data or calculation results from one system of units to another, it is important that this ratio has the most accurate value. However, the ratio of the Planck charge in franklins to the Planck charge in coulombs already shows a noticeable difference

$$K_q^{\frac{G}{SI}} = \frac{c^G}{10} \cdot \frac{s}{cm} \cdot \frac{Fr}{\mathrm{C}} = 2.99792458 \cdot 10^9 \cdot \frac{Fr}{\mathrm{C}}$$

$$\frac{q_P^G}{q_P^{SI}} = \frac{\sqrt{\hbar^G \cdot c^G}}{\left(\frac{e^{SI}}{\sqrt{\alpha}}\right)} = 2.9979245808180313 \cdot 10^9 \cdot \frac{Fr}{C} \qquad (16)$$

To eliminate this difference and use the existing coefficients for converting the values of electromagnetic quantities between SI and G (as for other systems of units of the SGC family) with maximum accuracy, it is necessary and sufficiently to establish the fundamental constant of the elementary charge in SI in the value:

$$e_{calc} = 10\sqrt{\frac{\alpha \cdot \hbar^G}{c^G \cdot cm \cdot gm}} \cdot C = 1.6021766344371795 \cdot 10^{-19} \cdot C \qquad (17)$$

Which is only a refinement of the value of the fundamental constant of the elementary charge set in SI $\mathrm{e} = 1.602176634 \cdot 10^{-19} \cdot C$.

However, such a change in SI is problematic in the foreseeable future, therefore, for conversion coefficients $K^{\frac{G}{SI}}$ between the values of G and SI associated with electromagnetic quantities, in order to ensure the highest possible accuracy, it is advisable to use the correction factor of the electric charge $K_{\Delta e}$ (in accordance with the degree of the basic electrical unit in SI (A - ampere), which is included in the value of the translated value):

$$K_{\Delta e} = \frac{e_{calc}}{e^{SI}} = \frac{10}{e^{SI}} \cdot \sqrt{\frac{\alpha \cdot \hbar^{G}}{c^{G} \cdot cm \cdot gm}} = 1.000000000272866 \qquad (18)$$

The value $K_{\Delta e}$ can be assumed to be accurate, since the standard uncertainty for it is calculated taking into account the value of the fine structure constant [6], as the combined standard uncertainty [1] according to the formula

$$u_{\mathrm{c}}(y) = \sqrt{\sum_{i=1}^{N} \left(\frac{df}{dx_i}\right)^2 \cdot u^2\,(x_i)} \qquad (19)$$

It matters $u_{\mathrm{c}}(K_{\Delta e}) = 1.2 \cdot 10^{-24}$.

It should be noted that it is precisely when applying $K_{\Delta e}$ that the Coulomb constantk_C acquires a theoretically precisely defined value for SI [9]:

$$k_C^{SI} = \frac{\alpha \cdot c^{SI} \cdot \hbar^{SI}}{(K_{\Delta e} \cdot e^{SI})^2} = \frac{1}{4 \cdot \pi \cdot \frac{(K_{\Delta e} \cdot e^{SI})^2}{2 \cdot \alpha \cdot c^{SI} \cdot h^{SI}}} =$$

$$= 10^{-7} \cdot \left(\frac{c^{SI} \cdot s}{m}\right)^2 \cdot m^3 \cdot kg \cdot sec^{-4} \cdot A^{-2} =$$

$$= 8.9875517873681764 \cdot 10^9 \cdot m^3 \cdot kg \cdot sec^{-4} \cdot A^{-2} \qquad (20)$$

That is, the anomaly in SI units is not related to experimental errors in determining one of the fundamental proportionality constants ε_0, as stated in [12], but to the value of the elementary charge in SI, chosen as the exact one.

4. Values of units of measurement, constants and their ratios in systems of units SI, G, PLT, PLTSI и PLTG

Based on the above results and the formula for calculating the standard uncertainty of the calculated data, the Appendix on Units and Dimensions [12] and the dimension of physical quantities in the LT system [2], Table 1 is formed, which shows the values of the basic units of measurement, basic constants, proportionality coefficients of the coupling equations and their ratios for the five considered systems of units (SI, PLTSI, PLT, PLTG and G). Calculations were performed using Mathcad 15.

For comparison, Table 1 also shows the values of physical constants and Planck quantities according to SI and CODATE recommendations [11], as well as an estimate of the difference between the recommended CODATE value, indicated in the table as $(A)_0$, and the calculated value, indicated in the table as A percentage of the standard uncertainty of the corresponding value

$$\frac{(A)_0 - A}{u(A)_0} \cdot 100\%$$

In addition, for clarity, the results of converting the corresponding calculated values from SI to G and G to SI are presented (Table 1 indicates $(A)_1$).

Table 1

The values of the basic units of measurement, the basic constants, the proportionality coefficients of the coupling equations and their ratios for the five considered systems of units (SI, PLTSI, PLT, PLTG and G)

<table>
<tr><th>Name</th><th>Sign</th><th>SI, PLTSI</th><th>G, PLTG</th><th>$\frac{K^{G}}{K^{SI}}$
$\frac{K^{PLTG}}{K^{PLTSI}}$</th></tr>
<tr><td rowspan="5">Time units</td><td rowspan="5">T</td><td colspan="3">Second (s)
$1\ s = \frac{9192631770}{\Delta\nu_{Cz}}$
(according to [5])</td></tr>
<tr><td colspan="3">$1\ s = 1.8548584976148537 \cdot 10^{43} \cdot t_P$</td></tr>
<tr><td colspan="3">$\left(t_P^{SI}\right)_0 = \left(t_P^{G}\right)_0 = 5.391247(60) \cdot 10^{-44} \cdot s$
(according to [11])</td></tr>
<tr><td colspan="3">$t_P^{SI} = t_P^{G} = 5.39124683249904(70) \cdot 10^{-44} \cdot s$
(according to [6])</td></tr>
<tr><td colspan="3">$\frac{\left(t_P^{SI}\right)_0 - t_P^{SI}}{u(t_P^{SI})_0} \cdot 100\% = 0.28\%$</td></tr>
<tr><td rowspan="3">The speed of light in a vacuum</td><td rowspan="3">c</td><td>$c = 299792458 \cdot m \cdot s^{-1}$
(according to [5])</td><td></td><td rowspan="2">$10^2 \frac{cm}{m}$</td></tr>
<tr><td>$c^{SI} = \ell_P^{SI}/t_P^{SI} = 299792458 \cdot m \cdot s^{-1}$</td><td>$c^{G} = \ell_P^{G}/t_P^{G} =$
$29979245800 \cdot cm \cdot s^{-1}$</td></tr>
<tr><td colspan="3">$c^{PLT} = \ell_P \cdot t_P{}^{-1}$</td></tr>
<tr><td>Units of spatial</td><td>L</td><td>Meter
$1\ m = (c/299792458) \cdot s$
(according to [5])</td><td>Centimeter
$cm = 10^{-2} \cdot m$</td><td>$10^2 \frac{cm}{m}$</td></tr>
</table>

Name	Sign	SI, PLTSI	G, PLTG	K^{G}_{SI} K^{PLTG}_{PLTSI}
		$1\ m = 6.187141964775024 \cdot 10^{34} \cdot \ell_P$	$1\ cm = 6.187141964775024 \cdot 10^{32} \cdot \ell_P$	
		$\left(\ell_P^{SI}\right)_0 = 1.616255(18) \cdot 10^{-35} \cdot m$ (according to [11])	$\left(\ell_P^{G}\right)_0 = 1.616255(18) \cdot 10^{-33} \cdot cm$	
		$\ell_P^{SI} = 1.61625513959960(21) \cdot 10^{-35} \cdot m$ (according to (6))	$\ell_P^{G} = 1.61625513959960(21) \cdot 10^{-33} cm$	
		$\frac{\left(\ell_P^{SI}\right)_0 - \ell_P^{SI}}{u(\ell_P^{SI})_0} \cdot 100\% = 0.78\%$		
		ℓ_P		
Elementary electric charge	e	$(e^{SI})_0 = 1.602176634 \cdot 10^{-19}$ C (according to [5])	$(e^G)_0 = \sqrt{(\alpha)_0 \cdot \hbar \cdot c} =$ $= 4.80320471388(36) \cdot 10^{-10} \cdot Fr$ $\left(cm^{\frac{3}{2}} \cdot gm^{\frac{1}{2}} \cdot s^{-1}\right)$ (according to the initial data [11])	$K_{\Delta e} \cdot \frac{c^G}{10} \cdot \frac{s}{cm} \cdot \frac{Fr}{C}$
		$e_{calc} = 10\sqrt{\frac{\alpha \cdot \hbar^G}{c^G \cdot cm \cdot gm}} \cdot C =$ $= 1.6021766344371795 \cdot 10^{-19} \cdot C$		
		$e^{SI}{}_1 = e^G \cdot \frac{10 \cdot cm \cdot C}{K_{\Delta e} \cdot c^G \cdot s \cdot Fr} =$ $= 1.60217663400000000 \cdot 10^{-19} \cdot C$	$e^G{}_1 = e^{SI} \cdot K_{\Delta e} \cdot \frac{c^G}{10} \cdot \frac{s}{cm} \cdot \frac{Fr}{C} =$ $= 4.803204713880896(58) \cdot 10^{-10} \cdot Fr$	
		$e^{SI} = e^{PLTSI} \cdot \left(K_q^{LT-SI}\right)^{-1} =$ $1.602176634 \cdot 10^{-19} \cdot C$	$e^G = e^{PLTG} \cdot \left(K_q^{LT-G}\right)^{-1} =$ $= \sqrt{\alpha \cdot \hbar^G \cdot c^G} =$ $4.803204713880896 \cdot 10^{-10} \cdot Fr$	
		$e^{PLTSI} = \sqrt{\alpha} \cdot \ell_P^{SI} \cdot {c^{SI}}^2 =$ $= 1.24089201392328(16) \cdot 10^{-19} \cdot m^3 \cdot s^{-2}$	$e^{PLTG} = \sqrt{\alpha} \cdot \ell_P^{G} \cdot {c^{G}}^2$ $1.24089201392328(16) \cdot 10^{-13}\ cm^3 \cdot s^{-2}$	$10^2 \frac{cm}{m}$
		$e^{PLT} = \sqrt{\alpha} \cdot {\ell_P}^3 \cdot {t_P}^{-2}$		
Correction factor of the electric charge	$K_{\Delta e}$	$K_{\Delta e} = \frac{e_{calc}}{(e^{SI})_0} = 10\sqrt{\alpha \cdot \frac{\hbar^G \cdot C^2}{c^G \cdot {e^{SI}{}_0}^2 \cdot cm \cdot gm}} = 1.000000000272866$		
The fine structure constant	α	$(\alpha)_0 = 7.2973525693(11) \cdot 10^{-3}$ (according to [11])		
		$\alpha = 7.29735256928761500 \cdot 10^{-3}$ $\alpha = \left(\frac{e^{PLT}}{q_P^{PLT}}\right)^2 = \left(\frac{e^{PLTSI}}{q_P^{PLTSI}}\right)^2 = \left(\frac{e^{PLTG}}{q_P^{PLTG}}\right)^2$		

Name	Sign	SI, PLTSI	G, PLTG	$K^{\frac{G}{SI}}$ $K^{\frac{PLTG}{PLTSI}}$
		$\frac{(\alpha)_0 - \alpha}{u(\alpha)_0} \cdot 100\% = 1.13\%$		
The rest mass constant of an elementary particle	K_{ep}^{rm}	General designation $K_{ep}^{rm} = \frac{M_{ep}^{rmPLT}}{M_P^{PLT}} = \frac{M_{ep}^{rmSI}}{M_P^{SI}} = \frac{M_{ep}^{rmG}}{M_P^{G}} = \frac{\ell_P}{\lambda_{C,ep}} = \frac{\ell_P^{SI}}{\lambda_{C,ep}^{SI}} = \frac{\ell_P^{G}}{\lambda_{C,ep}^{G}}$		
		Electron $K_e^{rm} = \frac{m_e}{M_P^{SI}} = \frac{\ell_P^{SI}}{\lambda_{C,e}^{SI}} = \frac{4 \cdot \pi \cdot R_\infty^{SI} \cdot \ell_P^{SI}}{\alpha^2} = 4.1854625117321(80) \cdot 10^{-23}$		
		Proton $K_{Pr}^{rm} = \frac{\ell_P^{SI}}{\lambda_{C,Pr}^{SI}} = 7.6851481804(23) \cdot 10^{-20}$		
		Neutron $K_N^{rm} = \frac{\ell_P^{SI}}{\lambda_{C,N}^{SI}} = 7.6957415370(44) \cdot 10^{-20}$		
		Muon $K_\mu^{rm} = \frac{\ell_P^{SI}}{\lambda_{C,\mu}^{SI}} = 8.6542090(12) \cdot 10^{-21}$		
The rest mass of the electron	m_e M_e	$(M_e^{SI})_0 = 9.1093837015(28) \cdot 10^{-31} \cdot kg$ (according to [11])	$(M_e^{G})_0 = 9.1093837015(28) \cdot 10^{-28} \cdot gm$ (according to [11])	$10^3 \frac{gm}{kg}$
		$M_e^{SI} = 4.185462511732135 \cdot 10^{-23} \cdot M_P^{SI}$	$M_e^{G} = 4.185462511732135 \cdot 10^{-23} \cdot M_P^{G}$	
		$M_e^{SI} = \frac{M_e^{PLTSI}}{K_M^{LT-SI}} = \frac{2 \cdot R_\infty^{SI} \cdot h^{SI}}{\alpha^2 \cdot c^{SI}} =$ $= 9.109383701549(17) \cdot 10^{-31} \cdot kg$	$M_e^{G} = \frac{M_e^{PLTG}}{K_M^{LT-G}} = \frac{2 \cdot R_\infty^{G} \cdot h^{G}}{\alpha^2 \cdot c^{G}}$ $= 9.109383701549(17) \cdot 10^{-28} \cdot gm$	
		$\frac{(M_e^{SI})_0 - M_e^{SI}}{u(M_e^{SI})_0} \cdot 100\% = 1.75\%$		
		$M_e^{PLTSI} = K_e^{rm} \cdot \ell_P^{SI} \cdot {c^{SI}}^2 =$ $= 6.079876830440(12) \cdot 10^{-41} \cdot m^3 \cdot s^{-2}$	$M_e^{PLTG} = K_e^{rm} \cdot \ell_P^{G} \cdot {c^{G}}^2$ $= 6.079876830440(12) \cdot 10^{-35} \cdot cm^3 \cdot s^{-2}$	$10^6 \frac{cm}{m}$
		$M_e^{PLT} = K_e^{rm} \cdot {\ell_P}^3 \cdot {t_P}^{-2}$		

Name	Sign	SI, PLTSI	G, PLTG	K^{G}_{SI} K^{PLTG}_{PLTSI}
The reduced Compton wavelength of the electron	$\lambda_{C,e}$	$\left(\overline{\lambda^{SI}_{C,e}}\right)_0 = 3.8615926796(12)\cdot 10^{-12}\cdot m$ (according to [11])	$\left(\overline{\lambda^{G}_{C,e}}\right)_0 = 3.8615926796(12)\cdot 10^{-10}\cdot cm$ (according to [11])	$10^2\frac{cm}{m}$
		$\overline{\lambda^{SI}_{C,e}} = \overline{\lambda^{PLTSI}_{C,e}} = 3.86159267958828(46)\cdot 10^{-12}\cdot m$	$\overline{\lambda^{G}_{C,e}} = \overline{\lambda^{PLTG}_{C,e}} = 3.86159267958828(46)\cdot 10^{-10}\cdot cm$	
		$\frac{\left(\overline{\lambda^{SI}_{C,e}}\right)_0 - \overline{\lambda^{SI}_{C,e}}}{u\left(\overline{\lambda^{SI}_{C,e}}\right)_0}\cdot 100\% = 0.98\%$		
		$\overline{\lambda^{PLTSI}_{C,e}} = \frac{\ell^{SI}_P}{K^{rm}_e} = \frac{\alpha^2}{4\cdot\pi\cdot R^{SI}_\infty} = 3.86159267958828(46)\cdot 10^{-12}\cdot m$	$\overline{\lambda^{PLTG}_{C,e}} = K^{rm}_e\cdot\ell^G_P = \frac{\alpha^2}{4\cdot\pi\cdot R^{G}_\infty} = 3.86159267958828(46)\cdot 10^{-10}\cdot cm$	
		$\lambda^{PLT}_{C,e} = K^{rm}_e\cdot\ell_P$		
Planck constant	h	$(h^{SI})_0 = 6.62607015\cdot 10^{-34}\cdot m^2\cdot kg\cdot s^{-1}$ (according to [5])	$(h^{G})_0 = 6.62607015\cdot 10^{-27}\cdot cm^2\cdot gm\cdot s^{-1}$ (according to [5])	$10^7\cdot\frac{gm\cdot cm^2}{kg\cdot m^2}$
		$h^{SI} = h^{PLTSI}\cdot\left(K^{LT-SI}_M\right)^{-1} = 6.62607015\cdot 10^{-34}\cdot m^2\cdot kg\cdot s^{-1}$	$h^{G} = h^{PLTG}\cdot\left(K^{LT-G}_M\right)^{-1} = 6.62607015\cdot 10^{-27}\cdot cm^2\cdot gm\cdot s^{-1}$	
		$(h^{SI})_0 - h^{SI} = 0$		
		$h^{PLTSI} = 2\cdot\pi\cdot{\ell^{SI}_P}^2\cdot{c^{SI}}^3 = 4.42243863050894(18)\cdot 10^{-44}\cdot m^5\cdot s^{-3}$	$h^{PLTG} = 2\cdot\pi\cdot{\ell^{G}_P}^2\cdot{c^{G}}^3 = 4.42243863050894(18)\cdot 10^{-34}\cdot cm^5\cdot s^{-3}$	$10^{10}\frac{cm^5}{m^5}$
		$h^{PLT} = 2\cdot\pi\cdot{\ell_P}^5\cdot{t_P}^{-3}$		
Dirac constant, reduced Planck constant, (Planck angular momentum)	$\hbar$	$(\hbar^{SI})_0 = \frac{(h^{SI})_0}{2\cdot\pi} = 1.0545718176461565\cdot 10^{-34}\cdot m^2\cdot kg\cdot s^{-1}$ (according to [5])	$(\hbar^{G})_0 = \frac{(h^{G})_0}{2\cdot\pi} = 1.0545718176461565\cdot 10^{-27}\cdot cm^2\cdot gm\cdot s^{-1}$ (according to [5])	$10^7\cdot\frac{gm\cdot cm^2}{kg\cdot m^2}$
		$\hbar^{SI} = h^{PLTSI}\cdot\left(K^{LT-SI}_M\right)^{-1} = \frac{{\ell^{SI}_P}^2\cdot{c^{SI}}^3\cdot\hbar^{SI}}{{\ell^{SI}_P}^2\cdot{c^{SI}}^3} = \hbar^{SI} = 1.0545718176461565\cdot 10^{-34}\cdot m^2\cdot kg\cdot s^{-1}$	$\hbar^{G} = \hbar^{PLTG}\cdot\left(K^{LT-G}_M\right)^{-1} = \frac{{\ell^{G}_P}^2\cdot{c^{G}}^3\cdot\hbar^{G}}{{\ell^{G}_P}^2\cdot{c^{G}}^3} = \hbar^{G} = 1.0545718176461565\cdot 10^{-27}\cdot cm^2\cdot gm\cdot s^{-1}$	

Name	Sign	SI, PLTSI	G, PLTG	$\frac{K_{SI}^{G}}{K_{PLTSI}^{PLTG}}$
		$(\hbar^{SI})_0 - \hbar^{SI} = 0$		
		$\hbar^{PLTSI} = {\ell_P^{SI}}^2 \cdot {c^{SI}}^3$ $7.03852968566049(18) \cdot$ $10^{-45} \cdot m^5 \cdot s^{-3}$	$\hbar^{PLTG} = {\ell_P^{G}}^2 \cdot {c^{G}}^3$ $7.03852968566049(18) \cdot$ $10^{-35} \cdot cm^5 \cdot s^{-3}$	$10^{10} \frac{cm^5}{m^5}$
		$\hbar^{PLT} = {\ell_P}^5 \cdot {t_P}^{-3}$		
Units of mass	M	Килограмм (kg) $1\ kg =$ $= \left(\frac{h}{6.62607015 \cdot 10^{-34}}\right) \cdot m^{-2} \cdot s$ (according to [5])	Грамм (gm) $\text{gm} = 10^{-3} \cdot kg$ (according to [5])	$10^{-3} \frac{gm}{kg}$
		$\left(M_P^{SI}\right)_0 = \sqrt{\frac{\hbar^{SI} \cdot c^{SI}}{(G_N^{SI})_0}} =$ $= 2.176434(24) \cdot 10^{-8} \cdot kg$ (according to [11])	$\left(M_P^{G}\right)_0 = \sqrt{\frac{\hbar^{G} \cdot c^{G}}{(G_N^{G})_0}} =$ $= 2.176434(24) \cdot 10^{-5} \cdot gm$ (according to [11])	
		$1\ kg = 4.594671438662291 \cdot$ $10^7 \cdot M_P^{SI}$	$1\ gm = 4.594671438662291 \cdot$ $10^4 \cdot M_P^{G}$	
		$M_P^{SI} = M_P^{PLTSI} \cdot \left(K_M^{LT-SI}\right)^{-1} =$ $= \frac{\hbar^{SI}}{\ell_P^{SI} \cdot c^{SI}} =$ $2.176434187623310(28) \cdot$ $10^{-8} \cdot kg$	$M_P^{G} = M_P^{PLTG} \cdot \left(K_M^{LT-G}\right)^{-1} =$ $= \frac{\hbar^{G}}{\ell_P^{G} \cdot c^{G}} =$ $2.176434187623310(28) \cdot$ $10^{-5} \cdot gm$	
		$\frac{\left(M_P^{SI}\right)_0 - M_P^{SI}}{u(M_P^{SI})_0} \cdot 100\% = 0.78\%$		
		$M_P^{PLTSI} = \ell_P^{SI} \cdot {c^{SI}}^2 =$ $1.45261767687514(19) \cdot$ $10^{-18} \cdot m^3 \cdot s^{-2}$	$M_P^{PLTG} = \ell_P^{G} \cdot {c^{G}}^2$ $1.45261767687514(19) \cdot$ $10^{-12} \cdot cm^3 \cdot s^{-2}$	$10^{6} \frac{cm^3}{m^3}$
		$M_P^{PLT} = {\ell_P}^3 \cdot {t_P}^{-2}$		
Units of force	F	Newton - $N = kg \cdot m \cdot s^{-2}$	Dyne - $dyn = cm \cdot gm \cdot s^{-2}$	$10^5 \cdot \frac{dyn}{N}$
		$N = 8.262718817316566 \cdot$ $10^{-45} \cdot F_P^{SI}$	$dyn = 8.262718817316566 \cdot$ $10^{-50} \cdot F_P^{G}$	
		$\left(F_P^{SI}\right)_0 = \frac{{c^{SI}}^4}{(G_N^{SI})_0} = 1.21026(27) \cdot$ $10^{44} \cdot N$ (according to the initial data [11])	$\left(F_P^{G}\right)_0 = \frac{{c^{G}}^4}{(G_N^{G})_0} = 1.21026(27) \cdot$ $10^{49} \cdot dyn$ (according to the initial data [11])	
		$F_P^{SI} = F_P^{PLTSI} \cdot \left(K_M^{LT-SI}\right)^{-1} =$ $= \frac{\hbar^{SI} \cdot c^{SI}}{{\ell_P^{SI}}^2} =$ $= 1.21025539185026(26) \cdot 10^{44} \cdot N$	$F_P^{G} = F_P^{PLTG} \cdot \left(K_M^{LT-G}\right)^{-1} =$ $= \frac{\hbar^{G} \cdot c^{G}}{{\ell_P^{G}}^2} =$ $= 1.21025539185026(26) \cdot$ $10^{49} \cdot dyn$	

Name	Sign	SI, PLTSI	G, PLTG	K_{SI}^{G} K_{PLTSI}^{PLTG}
		$\frac{(F_P^{SI})_0 - F_P^{SI}}{u(F_P^{SI})_0} \cdot 100\% = 1.71\%$		
		$F_P^{PLTSI} = c^{SI^4} = 8.07760871306249 \cdot 10^{33} \cdot m^4 \cdot s^{-4}$	$F_P^{PLTG} = c^{G^4} = = 8.07760871306249 \cdot 10^{41} \cdot cm^4 \cdot s^{-4}$	$10^8 \cdot \frac{cm^4}{m^4}$
		$F_P^{PLT} = \ell_P{}^3 \cdot t_P{}^{-3}$		
Units of energy	E	Joule - $J = m^2 \cdot kg \cdot s^{-2}$	Erg - $erg = cm^2 \cdot gm \cdot s^{-2}$	$10^7 \cdot \frac{erg}{J}$
		Electronvolt $eV^{SI} = = 1.602176634 \cdot 10^{-19} \cdot m^2 \cdot kg \cdot s^{-2}$ (according to [11])	Electronvolt $eV^G = = 1.602176634 \cdot 10^{-12} \cdot cm^2 \cdot gm \cdot s^{-2}$	
		$J = 5.112261433775557 \cdot 10^{-10} \cdot E_P^{SI}$	$erg = 5.112261433775557 \cdot 10^{-17} \cdot E_P^G$	
		$(E_P^{SI})_0 = \sqrt{\frac{\hbar^{SI} \cdot c^{SI^5}}{(G_N^{SI})_0}} = = 1.956082(22) \cdot 10^9 \cdot J$ (according to the initial data [11])	$(E_P^G)_0 = \sqrt{\frac{\hbar^G \cdot c^{G^5}}{(G_N^G)_0}} = = 1.956082(22) \cdot 10^{16} \cdot J$ (according to the initial data [11])	
		$E_P^{SI} = \ell_P^{SI} \cdot c^{SI^4} \cdot (K_M^{LT-SI})^{-1} = = \frac{\hbar^{SI} \cdot c^{SI}}{\ell_P^{SI}} = = 1.95608149730611(25) \cdot 10^9 \cdot J$	$E_P^G = \ell_P^G \cdot c^{G^4} \cdot (K_M^{LT-G})^{-1} = = \frac{\hbar^G \cdot c^G}{\ell_P^G} = = 1.95608149730611(25) \cdot 10^{16} \cdot erg$	
		$\frac{(E_P^{SI})_0 - E_P^{SI}}{u(E_P^{SI})_0} \cdot 100\% = 2.28\%$		
		$E_P^{PLTSI} = \ell_P^{SI} \cdot c^{SI^4} = = 0.13055476598161(17) \cdot m^5 \cdot s^{-4}$	$E_P^{PLTG} = \ell_P^G \cdot c^{G^4} = = 1305547659.8161(17) \cdot cm^5 \cdot s^{-4}$	$10^{10} \cdot \frac{cm^5}{m^5}$
		$E_P^{PLT} = \ell_P{}^5 \cdot t_P{}^{-4}$		
Rydberg constant times hc in J	$h \cdot c \cdot R_\infty = \alpha^2 \cdot M_e$ …2/2	$(h \cdot c \cdot R_\infty)_0 = = 2.1798723611035(42) \cdot 10^{-18} \cdot J$ (according to [11])	$(h^G \cdot c^G \cdot R_\infty{}^G)_0 = = 2.1798723611035(42) \cdot 10^{-11} \cdot erg$ (according to [11])	$10^7 \cdot \frac{erg}{J}$
		$h \cdot c \cdot R_\infty = \frac{\alpha^2 \cdot \mathrm{K}_e^{rm}}{2} \cdot E_P^{SI} = = 1.114407740222312(19) \cdot 10^{-27} \cdot E_P^{SI}$	$(h \cdot c \cdot R_\infty)^G = \frac{\alpha^2 \cdot \mathrm{K}_e^{rm}}{2} \cdot E_P^G = = 1.114407740222312(19) \cdot 10^{-27} \cdot E_P^G$	

Name	**Sign**	**SI, PLTSI**	**G, PLTG**	$K^{\frac{G}{SI}}$ $K^{\frac{PLTG}{PLTSI}}$
		$(h\cdot c\cdot R_\infty)^{SI} = = \frac{\alpha^2\cdot K_e^{rm}}{2}\cdot \ell_P^{SI}\cdot {c^{SI}}^4\cdot \left(K_M^{LT-SI}\right)^{-1} = = \frac{4\cdot\pi\cdot K_e^{rm}}{\alpha^2}\cdot\frac{\hbar^{SI}\cdot c^{SI}}{\ell_P^{SI}} = = 2.17987236110358(29)\cdot 10^{-18}\cdot J$	$(h\cdot c\cdot R_\infty)^{G} = = \frac{\alpha^2\cdot K_e^{rm}}{2}\cdot \ell_P^{G}\cdot {c^{G}}^4\cdot \left(K_M^{LT-G}\right)^{-1} = = 2.17987236110358(29)\cdot 10^{-11}\cdot erg$	
		$\frac{(h\cdot c\cdot R_\infty)_0-(h\cdot c\cdot R_\infty)^{SI}}{u(h\cdot c\cdot R_\infty)_0}\cdot 100\% = = 1.90\%$		
		$(h\cdot c\cdot R_\infty)^{PLTSI} = = \frac{\alpha^2\cdot K_e^{rm}}{2}\cdot \ell_P^{SI}\cdot {c^{SI}}^4 = = 1.45491241732827(19)\cdot 10^{-28}\cdot m^5\cdot s^{-4}$	$(h\cdot c\cdot R_\infty)^{PLTG} = = \frac{\alpha^2\cdot K_e^{rm}}{2}\cdot \ell_P^{G}\cdot {c^{G}}^4 = = 1.45491241732827(19)\cdot 10^{-18}\cdot cm^5\cdot s^{-4}$	$10^{10}\cdot\frac{cm^5}{m^5}$
		$(h\cdot c\cdot R_\infty)^{PLT} = \frac{\alpha^2\cdot K_e^{rm}\cdot {\ell_P}^5}{2\cdot {t_P}^4} = = 1.114407740222312(19)\cdot 10^{-27}\cdot {\ell_P}^5\cdot {t_P}^{-4}$		
Hartree energy	E_h	$\left(E_h^{SI}\right)_0 = 4.3597447222071(85)\cdot 10^{-18}\cdot J$ (according to [11])	$(E_h)_0 = 4.3597447222071(85)\cdot 10^{-11}\cdot erg$ (according to [11])	$10^7\cdot\frac{erg}{J}$
		$E_h^{SI} = \alpha^2\cdot K_e^{rm}\cdot E_P^{SI} = = 2.228815480444624(42)\cdot 10^{-27}\cdot E_P^{SI}$	$E_h^{G} = \alpha^2\cdot K_e^{rm}\cdot E_P^{G} = = 2.228815480444624(42)\cdot 10^{-27}\cdot E_P^{G}$	
		$P_h^{SI} = = \alpha^2\cdot K_e^{rm}\cdot \ell_P^{SI}\cdot {c^{SI}}^4\cdot\left(K_M^{LT-SI}\right)^{-1} = = \alpha^2\cdot K_e^{rm}\cdot\frac{\hbar^{SI}\cdot c^{SI}}{\ell_P^{SI}} = = 4.35974472220717(58)\cdot 10^{-18}\cdot J$	$P_h^{G} = = \alpha^2\cdot K_e^{rm}\cdot \ell_P^{G}\cdot {c^{G}}^4\cdot\left(K_M^{LT-G}\right)^{-1} = = 4.35974472220717(58)\cdot 10^{-11}\cdot erg$	
		$\frac{\left(E_h^{SI}\right)_0-E_h^{SI}}{u(E_h^{SI})_0}\cdot 100\% = 0.82\%$		
		$E_h^{PLTSI} = = \alpha^2\cdot K_e^{rm}\cdot \ell_P^{SI}\cdot {c^{SI}}^4 = = 2.90982483465654(38)\cdot 10^{-28}\cdot m^5\cdot s^{-4}$	$E_h^{PLTG} = = \alpha^2\cdot K_e^{rm}\cdot \ell_P^{G}\cdot {c^{G}}^4 = = 2.90982483465654(38)\cdot 10^{-18}\cdot cm^5\cdot s^{-4}$	$10^{10}\cdot\frac{cm^5}{m^5}$
		$P_h^{PLT} = \frac{\alpha^2\cdot K_e^{rm}\cdot {\ell_P}^5}{{t_P}^4} = 2.228815480444624(42)\cdot 10^{-27}\cdot {\ell_P}^5\cdot {t_P}^{-4}$		

Name	Sign	SI, PLTSI	G, PLTG	K_{SI}^{G} K_{PLTSI}^{PLTG}
Power units	P	Watt - W = A · V = $kg \cdot m^2 \cdot s^{-2}$	$erg \cdot s^{-1} = cm^2 \cdot gm \cdot s^{-3}$	$10^7 \cdot \frac{W \cdot s}{\text{erg}}$
		$\left(P_P^{SI}\right)_0 = \frac{{c^{SI}}^5}{G_N^{SI}} = 3.628255(82) \cdot 10^{52} \cdot W$ (according to the initial data [11])	$\left(P_P^{G}\right)_0 = \frac{{c^{G}}^5}{G_N^{G}} = 3.628255(82) \cdot 10^{59} \cdot erg \cdot s^{-1}$ (according to the initial data [11])	
		$P_P^{SI} = {c^{SI}}^5 \cdot \left(K_M^{LT-SI}\right)^{-1} = \frac{\hbar^{SI} \cdot {c^{SI}}^2}{{\ell_P^{SI}}^2} = 3.62825438730543(91) \cdot 10^{52} \cdot W$	$P_P^{G} = {c^{G}}^5 \cdot \left(K_M^{LT-G}\right)^{-1} = \frac{\hbar^{G} \cdot {c^{G}}^2}{{\ell_P^{G}}^2} = 3.62825438730543(91) \cdot 10^{57} \cdot erg \cdot s^{-1}$	
		$\frac{(P_h)_0 - P_h^{SI}}{u(P_h)_0} \cdot 100\% = 0.75\%$		
		$P_P^{PLTSI} = {c^{SI}}^5 = 2.4216061708512204 \cdot 10^{42} \cdot m^5 \cdot s^{-5}$	$P_P^{PLTG} = {c^{G}}^5 = 2.4216061708512204 \cdot 10^{52} \cdot cm^5 \cdot s^{-5}$	$10^{10} \cdot \frac{cm^5}{m^5}$
		$P_P^{PLT} = {\ell_P}^5 \cdot {t_P}^{-5}$		
Units of electric charge	Q	Coulomb (C) $1\text{C} = \frac{{e^{SI}}_0}{1.602176634 \cdot 10^{-19}}$ (according to [5])	Franklin (Fr) $1Fr = cm^{3/2} \cdot gm^{1/2} \cdot s^{-1}$	$K_{\Delta e} \cdot \frac{c^G}{10} \cdot \frac{s}{cm} \cdot \frac{Fr}{\text{C}}$
		$1\text{C} = 5.331780611391911 \cdot 10^{17} \cdot q_P^{SI}$	$1Fr = 1.778490574948703 \cdot 10^{8} \cdot q_P^{G}$	
		$\left(q_P^{SI}\right)_0 = \frac{(e^{SI})_0}{\sqrt{(\alpha)_0}} = 1.87554603778(14) \cdot 10^{-18} \cdot C$ (according to the initial data [11])	$\left(q_P^{G}\right)_0 = \sqrt{\hbar^G \cdot c^G} = 5.622745569111846 \cdot 10^{-9} \cdot Fr$ (according to the initial data [11])	
		${q_P^{SI}}_1 = \sqrt{\hbar^G \cdot c^G} \cdot \frac{10 \cdot cm \cdot C}{K_{\Delta e} \cdot c^G \cdot s \cdot Fr} = 1.875546037778439 \cdot 10^{-18} \cdot C$	${q_P^{G}}_1 = q_P^{SI} \cdot K_{\Delta e} \cdot \frac{c^G}{10} \cdot \frac{s}{cm} \cdot \frac{Fr}{\text{C}} = 5.622745569111846 \cdot 10^{-9} \cdot Fr$	
		$q_P^{SI} = q_P^{PLTSI} \cdot \left(K_q^{LT-SI}\right)^{-1} = \frac{\text{e}}{\sqrt{\alpha}} = 1.875546037778439 \cdot 10^{-18} \cdot C$	$q_P^{G} = q_P^{PLTG} \cdot \left(K_q^{LT-G}\right)^{-1} = \sqrt{\hbar^G \cdot c^G} = 5.622745569111846 \cdot 10^{-9} \cdot Fr$	
		$\frac{\left(q_P^{SI}\right)_0 - q_P^{SI}}{u(q_P^{SI})_0} \cdot 100\% = 0.01\%$		

Name	Sign	SI, PLTSI	G, PLTG	K^{G}_{SI} K^{PLTG}_{PLTSI}
		$q_P^{PLTSI} = \ell_P^{SI} \cdot {c^{SI}}^2 =$ $1.45261767687514(19) \cdot$ $10^{-18} \cdot m^3 \cdot s^{-2}$	$q_P^{PLTG} = \ell_P^{G} \cdot {c^{G}}^2$ $1.45261767687514(19) \cdot$ $10^{-12} \cdot cm^3 \cdot s^{-2}$	$10^6 \frac{cm^3}{m^3}$
		$q_P^{PLT} = {\ell_P}^3 \cdot {t_P}^{-2}$		
Units of electric current	I	Ampere (A) $1A = \mathrm{C}/s$	$Fr/s = cm^{3/2} \cdot gm^{1/2} \cdot s^{-2}$	$K_{\Delta e} \cdot \frac{c^G}{10} \cdot \frac{s}{cm} \cdot \frac{Fr}{\mathrm{C}}$
		$1A =$ $= 2.87449453327464(37) \cdot$ $10^{-26} \cdot I_P^{SI}$	$Fr/s =$ $=9.588281678821584(12) \cdot$ $10^{-36} \cdot I_P^{G}$	
		$\left(I_P^{SI}\right)_0 = \frac{\mathrm{e}}{(t_P^{SI})_0 \cdot \sqrt{(\alpha)_0}} =$ $= 3.478872(39) \cdot 10^{25} \cdot A$ (according to the initial data [11])	$\left(I_P^{G}\right)_0 = \frac{\sqrt{\hbar^G \cdot c^G}}{(t_P^G)_0} =$ $= 1.042940(12) \cdot 10^{35} \cdot Fr/s$ (according to the initial data [11])	
		$\left(I_P^{SI}\right)_1 = \frac{\sqrt{\hbar^G \cdot c^G}}{t_P^G} \cdot \frac{10 \cdot cm \cdot C}{K_{\Delta e} \cdot c^G \cdot s \cdot Fr} =$ $= 3.47887250584121(45) \cdot 10^{25} \cdot A$	$\left(I_P^{G}\right)_1 = I_P^{SI} \cdot K_{\Delta e} \cdot \frac{c^G}{10} \cdot \frac{s}{cm} \cdot \frac{Fr}{\mathrm{C}} =$ $= 1.04293973987934(14) \cdot$ $10^{35} \cdot Fr/s$	
		$I_P^{SI} = I_P^{PLTSI} \cdot \left(K_q^{LT-SI}\right)^{-1} = \frac{\mathrm{e}^{SI}}{\sqrt{\alpha} \cdot t_P^{SI}}$ $= 3.47887250584121(45) \cdot 10^{25} \cdot A$	$I_P^{G} = I_P^{PLTG} \cdot \left(K_q^{LT-G}\right)^{-1} = \frac{\sqrt{\hbar^G \cdot c^G}}{t_P^G}$ $= 1.04293973987934(14) \cdot$ $10^{35} \cdot Fr/s$	
		$\frac{\left(I_P^{SI}\right)_0 - I_P^{SI}}{u(I_P^{SI})_0} \cdot 100\% = 1.30\%$		
		$I_P^{PLTSI} = {c^{SI}}^3 =$ $2.69440024173739840 \cdot$ $10^{25} \cdot m^3 \cdot s^{-3}$	$I_P^{PLTG} = {c^{G}}^3$ $2.69440024173739840 \cdot$ $10^{31} \cdot cm^3 \cdot s^{-3}$	$10^6 \frac{cm^3}{m^3}$
		$I_P^{PLT} = {\ell_P}^3 \cdot {t_P}^{-3}$		
Mass conversion factor	K_M^{LT}	K_M^{LT-SI} $(m^3 \cdot s^{-2} \cdot kg^{-1})$ $K_M^{LT-SI} = \frac{M_P^{\mathrm{PLTSI}}}{M_P^{SI}} = \frac{{\ell_P^{SI}}^2 \cdot {c^{SI}}^3}{\hbar^{SI}}$ $6.6743009512342(17) \cdot$ $10^{-11} \cdot m^3 \cdot s^{-2} \cdot kg^{-1}$	K_M^{LT-G} $(cm^3 \cdot s^{-2} \cdot gm^{-1})$ $K_M^{LT-G} = \frac{M_P^{\mathrm{PLTG}}}{M_P^{G}} = \frac{{\ell_P^{G}}^2 \cdot {c^{G}}^3}{\hbar^{G}}$ $6.6743009512342(17) \cdot$ $10^{-8} \cdot cm^3 \cdot s^{-2} \cdot gm^{-1}$	

Name	**Sign**	**SI, PLTSI**	**G, PLTG**	$K^{\frac{G}{SI}}$ $K^{\frac{PLTG}{PLTSI}}$
Conversion factor of the electric charge	K_q	$K_q^{LT-SI}\ (m^3\cdot s^{-2}\cdot C^{-1})$ $K_q^{LT-SI}=\frac{q_P^{LT}}{q_P^{SI}}=\frac{\sqrt{\alpha}\cdot \ell_P^{SI}\cdot {c^{SI}}^2}{e^{SI}}=$ $=0.77450387653280(10)$ $m^3\cdot s^{-2}\cdot C^{-1}$	$K_q^{LT-G}\left(cm^{\frac{3}{2}}\cdot s^{-1}\cdot gm^{-\frac{1}{2}}\right)$ $K_q^{LT-G}=\frac{q_P^{PLTG}}{q_P^{G}}=\frac{\ell_P^G\cdot {c^G}^2}{\sqrt{\hbar^G\cdot c^G}}=$ $=\sqrt{\frac{{\ell_P^G}^2\cdot {c^G}^4}{\hbar^G\cdot c^G}}=\sqrt{K_M^{LT-G}}=$ $=2.58346684732632(33)\cdot$ $10^{-4}\cdot cm^{3/2}\cdot s^{-1}\cdot gm^{-1/2}$	
Vacuum electric permittivity	ε_0	$(\varepsilon_0)_0=8.8541878128(13)\cdot 10^{-12}$ $\cdot F/m$ $(sec^4\cdot A^2\cdot m^{-3}\cdot kg^{-1})$ (according to [11])	$\left(\varepsilon_0^G\right)_0=1$	
		$\left(\varepsilon_0^{SI}\right)_1=\frac{\varepsilon_0^G\cdot 10^{11}\cdot F}{{K_{\Delta e}}^2\cdot 4\cdot\pi\cdot\left(c^G\cdot\frac{s}{cm}\right)^2\cdot m}=$ $=8.854187812788377\cdot F/m$ $\left(\left(\varepsilon_0^{SI}\right)_2=\frac{\varepsilon_0^G\cdot 10^{11}\cdot F}{4\cdot\pi\cdot\left(c^G\cdot\frac{s}{cm}\right)^2\cdot m}= \right.$ $\left. =8.854187817620389\cdot F/m\right)$	$\left(\varepsilon_0^G\right)_1=$ $=\varepsilon_0^{SI}\cdot {K_{\Delta e}}^2\cdot\frac{4\cdot\pi\cdot\left(c^G\cdot\frac{s}{cm}\right)^2\cdot m}{10^{11}\cdot F}$ $=1$	${K_{\Delta e}}^2\cdot\frac{4\cdot\pi\cdot\left(c^G\cdot\frac{s}{cm}\right)^2\cdot m}{10^{11}\cdot F}$
		$\varepsilon_0^{SI}=$ $=\varepsilon_0^{PLTSI}\cdot\left(K_q^{LT-SI}\right)^{-2}\cdot K_M^{LT-SI}=$ $=\frac{1}{4\cdot\pi}\cdot\frac{(e^{SI})^2}{\hbar^{SI}\cdot\alpha\cdot c^{SI}}=$ $=8.854187812788377\cdot$ $10^{-12}\cdot s^4\cdot A^2\cdot m^{-3}\cdot kg^{-1}$	$\varepsilon_0^G=\varepsilon_0^{PLTG}\cdot\left(K_q^{LT-G}\right)^{-2}\cdot K_M^{LT-G}=$ $=\varepsilon_0^{PLTG}\cdot\left(K_M^{LT-G}\right)^{-1}\cdot K_M^{LT-G}=1$	
		$\frac{(\varepsilon_0)_0-\varepsilon_0^{SI}}{u(\varepsilon_0)_0}\cdot 100\%=0.89\%$		
		$\varepsilon_0^{PLTSI}=\frac{1}{4\pi}$	$\varepsilon_0^{PLTG}=1$	4π
		$\varepsilon_0^{PLT}=1$		
the Newtonian constant of gravitation	G_N	$\left(G_N^{SI}\right)_0=6.67430(15)\cdot$ $10^{-11}\cdot m^3\cdot s^{-2}\cdot kg^{-1}$ (according to [11])	$\left(G_N^{G}\right)_0=6.67430(15)\cdot$ $10^{-8}\cdot cm^3\cdot s^{-2}\cdot gm^{-1}$ (according to [11])	$10^3\cdot\frac{m^3\cdot gm}{cm^3\cdot kg}$
		$G_N^{SI}=G_N^{PLTSI}\cdot K_M^{LT-SI}=\frac{{\ell_P^{SI}}^2\cdot {c^{SI}}^3}{\hbar^{SI}}=$ $=6.6743009512342(17)\cdot$ $10^{-11}\cdot m^3\cdot s^{-2}\cdot kg^{-1}$	$G_N^{G}=G_N^{PLTG}\cdot K_M^{LT-G}=\frac{{\ell_P^{G}}^2\cdot {c^{G}}^3}{\hbar^{G}}=$ $=6.6743009512342(17)\cdot$ $10^{-8}\cdot cm^3\cdot s^{-2}\cdot gm^{-1}$	

Name	Sign	SI, PLTSI	G, PLTG	K^{G}_{SI} K^{PLTG}_{PLTSI}
		$\frac{(G_N^{SI})_0 - G_N^{SI}}{u(G_N^{SI})_0} \cdot 100\% = 0.63\%$		
		$G_N^{PLTSI} = 1$	$G_N^{PLTG} = 1$	1
		$G_N^{PLT} = 1$		
The constant in Coulomb's law (k_C, k_e, k_1)	k_C	$(k_C)_0 = \frac{1}{4 \cdot \pi \cdot (\varepsilon_0)_0} =$ $= 8.9875517923(13) \cdot$ $10^9 \cdot m^3 \cdot kg \cdot s^{-4} \cdot A^{-2}$ (according to the initial data [11])	$k_C^G = 1$	$\frac{10^{11} \cdot F}{{K_{\Delta e}}^2 \cdot \left(c^G \cdot \frac{s}{cm}\right)^2 \cdot m}$
		$\left(k_C^{SI}\right)_1 = k_C^G \cdot \frac{{K_{\Delta e}}^2 \cdot \left(c^G \cdot \frac{s}{cm}\right)^2 \cdot m}{10^{11} \cdot F} =$ $= 8.987551792272972 \cdot$ $\cdot 10^9 \cdot m^3 \cdot kg \cdot s^{-4} \cdot A^{-2}$ $\left(\left(k_C^{SI}\right)_2 = k_C^G \cdot \frac{\left(c^G \cdot \frac{s}{cm}\right)^2 \cdot m}{10^{11} \cdot F} = = \frac{{c^{SI}}^2}{10^7} \cdot m \cdot kg \cdot s^{-2} \cdot A^{-2}\right)$	$\left(k_C^G\right)_1 =$ $= k_C^{SI} \cdot \frac{10^{11} \cdot F}{{K_{\Delta e}}^2 \cdot \left(c^G \cdot \frac{s}{cm}\right)^2 \cdot m} = 1$	
		$k_C^{SI} =$ $= k_C^{PLTSI} \cdot \left(K_M^{LT-SI}\right)^{-1} \cdot \left(K_q^{LT-SI}\right)^2 =$ $= \frac{\alpha \cdot c^{SI} \cdot \hbar^{SI}}{{\mathrm{e}^{SI}}^2} =$ $= 8.987551792272972 \cdot$ $\cdot 10^9 \cdot m^3 \cdot kg \cdot s^{-4} \cdot A^{-2}$	$k_C^G = \left(K_M^{LT-G}\right)^{-1} \cdot \left(K_q^{LT-G}\right)^2 =$ $= \frac{\hbar^G}{{\ell_P^G}^2 \cdot {c^G}^3} \cdot \frac{{\ell_P^G}^2 \cdot {c^G}^4}{\hbar^G \cdot c^G} = 1$	
		$\frac{(k_C)_0 - k_C^{SI}}{u(k_C)_0} \cdot 100\% = 2.01\%$		
		$k_C^{PLTSI} = 1$	$k_C^{PLTG} = 1$	1
		$k_C^{PLT} = 1$		
Vacuum magnetic permeability	μ_0	$\left(\mu_0^{SI}\right)_0 = 1.25663706212(19) \cdot$ $10^{-6} \cdot m \cdot kg \cdot s^{-2} \cdot A^{-2}$ (according to [11])	$\left(\mu_0^G\right)_0 = 1$	$\frac{10^7}{{K_{\Delta e}}^2 \cdot 4 \cdot \pi} \cdot \frac{A^2}{N}$
		$\left(\mu_0^{SI}\right)_1 = \mu_0^G \cdot \frac{{K_{\Delta e}}^2 \cdot 4 \cdot \pi \cdot N}{10^7 \cdot A^2} =$ $= 1.2566370621217045 \cdot$ $10^{-6} \cdot m \cdot kg \cdot sec^{-2} \cdot A^{-2}$ $\left(\left(\mu_0^{SI}\right)_2 = \mu_0^G \cdot \frac{4 \cdot \pi \cdot N}{10^7 \cdot A^2} = \frac{4 \cdot \pi}{10^7} \cdot \frac{N}{A^2}\right)$	$\left(\mu_0^G\right)_1 = \mu_0^{SI} \cdot \frac{10^7}{{K_{\Delta e}}^2 \cdot 4 \cdot \pi} \cdot \frac{A^2}{N} = 1$	
		$\mu_0^{SI} = \mu_0^{PLTSI} \cdot \left(K_M^{LT-SI}\right)^{-1} \cdot \left(K_q^{LT-SI}\right)^2$ $= \frac{4 \cdot \pi \cdot \alpha \cdot \hbar^{SI}}{c^{SI} \cdot {\mathrm{e}^{SI}}^2} =$ $1.2566370621217045 \cdot$ $10^{-6} \cdot m \cdot kg \cdot sec^{-2} \cdot A^{-2}$	$\mu_0^G = \mu_0^{PLTG} \cdot \left(K_M^{LT-G}\right)^{-1} \cdot \left(K_q^{LT-G}\right)^2$ $= \frac{\hbar^G}{{\ell_P^G}^2 \cdot {c^G}^3} \cdot \frac{{\ell_P^G}^2 \cdot {c^G}^4}{\hbar^G \cdot c^G} = 1$	

Name	Sign	SI, PLTSI	G, PLTG	$K^{\frac{G}{SI}}$ $K^{\frac{PLTG}{PLTSI}}$
		$\frac{(\mu_0^{SI})_0-\mu_0^{SI}}{u(\mu_0^{SI})_0}\cdot 100\% = 0.90\%$		
		$\mu_0^{PLTSI}=\frac{4\cdot\pi}{c^{SI^2}}$	$\mu_0^{PLTG}=1$	$\frac{c^{SI^2}}{4\cdot\pi}$
		$\mu_0^{PLT}=t_P{}^2\cdot\ell_P{}^{-2}$		
The constant in Ampere's law (k_A, k_2)	k_A	$(k_A^{SI})_0=\frac{(\mu_0^{SI})_0}{4\cdot\pi}=$ $=1.00000000054(15)\cdot$ $10^{-7}\cdot kg\cdot m\cdot A^{-2}\cdot s^{-2}$ (according to the initial data [11])	$(k_A^G)_0=k_A^{PLTG}=\frac{1}{c^{G^2}}$ $=1.1126500560536186\cdot$ $10^{-21}\cdot\frac{s^2}{cm^2}$	$\frac{10^7}{K_{\Delta e}{}^2\cdot c^{G^2}}\cdot\frac{A^2}{N}$
		$(k_A^{SI})_1=k_A^G\cdot\frac{K_{\Delta e}{}^2\cdot c^{G^2}\cdot N}{10^7\cdot A^2}=$ $=1.0000000005457321\cdot$ $10^{-7}\cdot N\cdot A^{-2}$ $\left((k_A^{SI})_2=k_A^G\cdot\frac{c^{G^2}\cdot N}{10^7\cdot A^2}= =10^{-7}\cdot N\cdot A^{-2}\right)$	$(k_A^G)_1=k_A^{SI}\cdot\frac{10^7}{K_{\Delta e}{}^2\cdot c^{G^2}}\cdot\frac{A^2}{N}=$ $=1.1126500560536186\cdot$ $10^{-21}\cdot\frac{s^2}{cm^2}=\frac{1}{c^{G^2}}$	
		$k_A^{SI}=k_A^{PLTSI}\cdot(K_M^{LT-SI})^{-1}\cdot(K_q^{LT-SI})^2$ $=\frac{\alpha\cdot\hbar^{SI}}{c^{SI}\cdot e^{SI^2}}=$ $1.0000000005457321\cdot$ $10^{-7}\cdot kg\cdot m\cdot A^{-2}\cdot s^{-2}$	$k_A^G=k_A^{PLTG}\cdot(K_M^{LT-G})^{-1}\cdot(K_q^{LT-G})^2$ $=\frac{1}{c^{G^2}}=1.1126500560536186\cdot$ $10^{-21}\cdot\frac{s^2}{cm^2}$	
		$\frac{(k_A^{SI})_0-k_A^{SI}}{u(k_A^{SI})_0}\cdot 100\% = 3.82\%$		
		$k_A^{PLTSI}=\frac{1}{c^{SI^2}}$	$k_A^{PLTG}=\frac{1}{c^{G^2}}$	$10^{-4}\cdot\frac{m^2}{cm^2}$
		$k_A^{PLT}=t_P{}^2\cdot\ell_P{}^{-2}$		
Rationalization constants $(a_B=a\cdot k_2)$	a_B	$a_B^{SI}=\frac{1}{c^{SI^2}}$	$a_B^G=\frac{1}{c^G}$	$10^{-4}\cdot c^G\cdot\frac{cm\cdot s}{m^2}$
		$a_B^{PLTSI}=\frac{1}{c^{SI^2}}$	$a_B^{PLTG}=\frac{1}{c^G}$	
		$a_B^{PLT}=t_P{}^2\cdot\ell_P{}^{-2}$		

Name	Sign	SI, PLTSI	G, PLTG	$K^{\frac{G}{SI}}$ $K^{\frac{PLTG}{PLTSI}}$
$(a_L = k_3)$	a_L	$a_L^{SI} = 1$	$a_L^{G} = \frac{1}{c^G}$	$^1/_{c^G}$
		$a_L^{PLTSI} = 1$	$a_L^{PLTG} = \frac{1}{c^G}$	$^1/_{c^G}$
		$a_L^{PLT} = 1$		
$\lambda = 4\pi \cdot k_C \cdot \varepsilon_0$	λ	$\lambda^{SI} = 1$	$\lambda^{G} = 4 \cdot \pi$	4π
		$\lambda^{PLTSI} = 1$	$\lambda^{PLTG} = 4 \cdot \pi$	4π
		$\lambda^{PLT} = 4 \cdot \pi$		
$\lambda' = \frac{4\pi \cdot a_B}{(\mu_0 \cdot a_L)}$	λ'	$\lambda'^{SI} = 1$	$\lambda'^{G} = 4 \cdot \pi$	4π
		$\lambda'^{PLTSI} = 1$	$\lambda'^{PLTG} = 4 \cdot \pi$	4π
		$\lambda'^{PLT} = 4\pi$		
Units of electrical potential (Voltage)	φ U	$1V = m^2 \cdot kg \cdot s^{-3} \cdot A^{-1}$	$1statV = cm^{\frac{1}{2}} \cdot gm^{\frac{1}{2}} \cdot s^{-1}$	$\frac{10^8}{K_{\Delta e} \cdot c^G \cdot \frac{s}{cm}} \cdot \frac{statV}{V}$
		$1V = 9.588281676205268 \cdot 10^{-28} \cdot U_P^{SI}$	$1statV =$ $= 2.874494532490289 \cdot 10^{-25} \cdot U_P^{G}$	
		$\left(U_P^{SI}\right)_0 = \frac{\sqrt{(\alpha)_0} \cdot c^{SI} \cdot \hbar^{SI}}{(\ell_P^{SI})_0 \cdot e^{SI}} =$ $= 1.042940(12) \cdot 10^{27} \cdot V$ (according to the initial data [11])	$\left(U_P^{G}\right)_0 = \frac{\sqrt{c^G \cdot \hbar^G}}{(\ell_P^G)_0} =$ $= 3.478873(39) \cdot 10^{24} \cdot 1statV$ (according to the initial data [11])	
		$\left(U_P^{SI}\right)_1 = U_P^{G} \cdot \frac{K_{\Delta e} \cdot c^G \cdot \frac{s}{cm} \cdot V}{10^8 \cdot statV} =$ $= 1.04293974016392(13) \cdot 10^{27} \cdot V$	$\left(U_P^{G}\right)_1 = U_P^{SI} \cdot \frac{10^8}{K_{\Delta e} \cdot c^G \cdot \frac{s}{cm}} \cdot \frac{statV}{V}$ $= 3.47887250679047(45) \cdot 10^{24} \cdot statV$	
		$U_P^{SI} = U_P^{PLTSI} \cdot \left(K_M^{LT-SI}\right)^{-1} \cdot \left(K_q^{LT-SI}\right)$ $= \frac{\sqrt{\alpha} \cdot c^{SI} \cdot \hbar^{SI}}{\ell_P^{SI} \cdot e^{SI}} =$ $= 1.04293974016392(13) \cdot 10^{27} \cdot V$	$U_P^{G} = U_P^{PLTG} \cdot \left(K_M^{LT-G}\right)^{-1} \cdot \left(K_q^{LT-G}\right)$ $= \frac{\sqrt{c^G \cdot \hbar^G}}{\ell_P^G} =$ $= 3.47887250679047(45) \cdot 10^{24} \cdot statV$	
		$\frac{\left(U_P^{SI}\right)_0 - U_P^{SI}}{u(U_P^{SI})_0} \cdot 100\% = 2.17\%$		
		$U_P^{PLTSI} = {c^{SI}}^2 =$ $= 8.987551787368176 \cdot 10^{16} \cdot m^2 \cdot s^{-2}$	$U_P^{PLTG} = {c^{G}}^2 =$ $= 8.987551787368176 \cdot 10^{20} \cdot cm^2 \cdot s^{-2}$	$10^4 \cdot \frac{cm^2}{m^2}$
		$U_P^{PLT} = {\ell_P}^2 \cdot {t_P}^{-2}$		

Name	Sign	SI, PLTSI	G, PLTG	$K^{\frac{G}{SI}}$ $K^{\frac{PLTG}{PLTSI}}$
Единицы напряженности электрического поля	E	$\frac{V}{m}=kg^2\cdot m\cdot s^{-3}\cdot A^{-1}$	$\frac{statV}{cm}=cm^{\frac{-1}{2}}\cdot gm^{\frac{1}{2}}\cdot s^{-1}$	$10^6\frac{}{K_{\Delta e}\cdot c^G\cdot\frac{s}{cm}}\cdot\frac{m\cdot statV}{cm\cdot V}$
		$\frac{V}{m}=1.5497109539095433\cdot 10^{-62}\cdot E_P^{SI}$	$\frac{statV}{cm}=4.645916561888379\cdot 10^{-58}\cdot E_P^{G}$	
		$\left(E_P^{SI}\right)_0=\frac{\sqrt{(\alpha)_0}\cdot c^{SI}\cdot\hbar^{SI}}{\left(\ell_P^{SI}\right)_0^{\ 2}\cdot e^{SI}}=$ $=6.452817(14)\cdot 10^{61}\cdot V\cdot m^{-1}$ (По исходным данным [11])	$\left(E_P^{G}\right)_0=\frac{\sqrt{c^G\cdot\hbar^G}}{\left(\ell_P^{G}\right)_0^{\ 2}}=$ $=2.152428(48)\cdot 10^{57}\cdot statV\cdot cm^{-1}$	
		$\left(E_P^{SI}\right)_1=\frac{\sqrt{c^G\cdot\hbar^G}}{\ell_P^{G\,2}}\cdot\frac{K_{\Delta e}\cdot c^G\cdot s\cdot V}{10^6\cdot statV\cdot m}=$ $=6.45281623309975(26)\cdot 10^{61}\cdot V\cdot m^{-1}$	$\left(E_P^{G}\right)_1=E_P^{SI}\cdot\frac{10^6\cdot m\cdot statV}{K_{\Delta e}\cdot c^G\cdot s\cdot V}=$ $=2.15242780768654(56)\cdot 10^{57}\cdot statV\cdot cm^{-1}$	
		$E_P^{SI}=E_P^{PLTSI}\cdot\left(K_M^{LT-SI}\right)^{-1}\cdot\left(K_q^{LT-SI}\right)$ $=\frac{\sqrt{\alpha}\cdot c^{SI}\cdot\hbar^{SI}}{\ell_P^{SI\,2}\cdot e^{SI}}=$ $=6.45281623309975(26)\cdot 10^{61}\cdot V\cdot m^{-1}$	$E_P^{G}=E_P^{PLTG}\cdot\left(K_M^{LT-G}\right)^{-1}\cdot\left(K_q^{LT-G}\right)$ $=\frac{\sqrt{c^G\cdot\hbar^G}}{\ell_P^{G\,2}}=$ $=2.15242780768654(56)\cdot 10^{57}\cdot statV\cdot cm^{-1}$	
		$\frac{\left(E_P^{SI}\right)_0-E_P^{SI}}{u\left(E_P^{SI}\right)_0}\cdot 100\%=7.74\%$		
		$E_P^{PLTSI}=c^{SI\,2}\cdot\ell_P^{SI\,-1}=$ $=5.56072588242144(72)\cdot 10^{51}\cdot m\cdot s^{-2}$	$E_P^{PLTG}=c^{G\,2}\cdot\ell_P^{G\,-1}=$ $=5.56072588242144(72)\cdot 10^{53}\cdot cm\cdot s^{-2}$	
		$E_P^{PLT}=\ell_P\cdot t_P^{\ -2}$		
Units of the electric displacement field	D	$1\,C/m^2=1.39281074613147(36)\cdot 10^{-52}\cdot D_P^{SI}$	$1\,Fr/cm^2=cm^{-\frac{1}{2}}\cdot gm^{\frac{1}{2}}\cdot s^{-1}=$ $4.64591656188838(26)\cdot 10^{-58}\cdot D_P^{G}$	$K_{\Delta e}\cdot\frac{c^G\cdot\frac{s}{cm}}{10^5}\cdot\frac{m^2\cdot Fr}{cm^2\cdot C}$
		$\left(D_P^{SI}\right)_0=\frac{e^{SI}}{\sqrt{(\alpha)_0}\cdot\left(\ell_P^{SI}\right)_0^{\ 2}}=$ $=7.17973(16)\cdot 10^{51}\cdot C\cdot m^{-2}$ (according to the initial data [11])	$\left(D_P^{G}\right)=\frac{\sqrt{\hbar^G\cdot c^G}}{\left(\ell_P^{G}\right)_0^{\ 2}}=$ $=2.152428(48)\cdot 10^{57}\cdot cm^{-\frac{1}{2}}\cdot gm^{\frac{1}{2}}\cdot s^{-1}$ (according to the initial data [11])	
		$\left(D_P^{SI}\right)_1=\frac{\sqrt{\hbar^G\cdot c^G}\cdot 10^5\cdot cm\cdot C}{\ell_P^{G\,2}\cdot K_{\Delta e}\cdot c^G\cdot s\cdot m^2\cdot Fr}=$ $=7.17972633954393(19)\cdot 10^{51}\cdot C\cdot m^{-2}$	$\left(D_P^{G}\right)_1=$ $=D_P^{SI}\cdot K_{\Delta e}\cdot\frac{c^G\cdot s}{10^5}\cdot\frac{m^2\cdot Fr}{cm\cdot C}=$ $=2.15242780768654(56)\cdot 10^{57}\cdot cm^{-\frac{1}{2}}\cdot gm^{\frac{1}{2}}\cdot s^{-1}$	

<table>
<tr><th>Name</th><th>Sign</th><th>SI, PLTSI</th><th>G, PLTG</th><th>K^{G}_{SI}
K^{PLTG}_{PLTSI}</th></tr>
<tr><td rowspan="4"></td><td rowspan="4"></td><td>$D_P^{SI} = D_P^{PLTSI} \cdot \left(K_q^{LT-SI}\right)^{-1} =$
$= \frac{e^{SI}}{\sqrt{\alpha} \cdot {\ell_P^{SI}}^2} =$
$= 7.17972633954393(19) \cdot$
$10^{51} \cdot C \cdot m^{-2}$</td><td>$D_P^{G} = D_P^{PLTG} \cdot \left(K_q^{LT-G}\right)^{-1} =$
$= \frac{\sqrt{\hbar^G \cdot c^G}}{{\ell_P^{G}}^2} =$
$= 2.15242780768654(56) \cdot$
$10^{57} \cdot cm^{-\frac{1}{2}} \cdot gm^{\frac{1}{2}} \cdot s^{-1}$</td><td></td></tr>
<tr><td>$\frac{\left(D_P^{SI}\right)_0 - D_P^{SI}}{u(D_P^{SI})_0} \cdot 100\% = 2.3\%$</td><td></td><td></td></tr>
<tr><td>$D_P^{PLTSI} = {c^{SI}}^2 \cdot {\ell_P^{SI}}^{-1} =$
$= 5.56072588242144(72) \cdot$
$10^{51} \cdot m \cdot s^{-2}$</td><td>$D_P^{PLTG} = {c^{G}}^2 \cdot {\ell_P^{G}}^{-1} =$
$= 5.56072588242144(72) \cdot$
$10^{53} \cdot cm \cdot s^{-2}$</td><td></td></tr>
<tr><td colspan="3">$D_P^{PLT} = \ell_P \cdot {t_P}^{-2}$</td></tr>
<tr><td rowspan="9">Units of the magnetic B field (magnetic induction)</td><td rowspan="9">B</td><td>Tesla $1T = kg \cdot A^{-1} \cdot s^2$</td><td>Gauss $1Gs = cm^{-\frac{1}{2}} \cdot gm^{\frac{1}{2}} \cdot s^{-1}$</td><td rowspan="5">$\frac{10^4}{K_{\Delta e}} \cdot \frac{Gs}{T}$</td></tr>
<tr><td>$1T = 4.64591656062066(12) \cdot$
$\cdot 10^{-54} \cdot B_P^{SI}$</td><td>$1Gs = 4.64591656188837(12) \cdot$
$10^{-58} \cdot B_P^{G}$</td></tr>
<tr><td>$\left(B_P^{SI}\right)_0 = \frac{\sqrt{(\alpha)_0} \cdot \hbar^{SI}}{{(\ell_P^{SI})_0}^2 \cdot e^{SI}} =$
$= 2.152428(48) \cdot 10^{53} \cdot T$
(according to the initial data [11])</td><td>$\left(B_P^{G}\right)_0 = \frac{\sqrt{c^G \cdot \hbar^G}}{{(\ell_P^{G})_0}^2} =$
$= 2.152428(48) \cdot 10^{57} \cdot Gs$
(according to the initial data [11])</td></tr>
<tr><td>$\left(B_P^{SI}\right)_1 = \frac{\sqrt{c^G \cdot \hbar^G}}{{\ell_P^{G}}^2} \cdot \frac{K_{\Delta e} \cdot T}{10^4 \cdot Gs} =$
$= 2.15242780827386(56) \cdot 10^{53} \cdot T$</td><td>$\left(B_P^{G}\right)_1 = B_P^{SI} \cdot \frac{10^4}{K_{\Delta e}} \cdot \frac{Gs}{T} =$
$= 2.15242780768654(56) \cdot$
$10^{57} \cdot Gs$</td></tr>
<tr><td>$B_P^{SI} = B_P^{PLTSI} \cdot \left(K_q^{LT-SI}\right) \cdot \left(K_M^{LT-SI}\right)^{-1}$
$= \frac{\sqrt{\alpha} \cdot \hbar^{SI}}{{\ell_P^{SI}}^2 \cdot e^{SI}} =$
$= 2.15242780827386(56) \cdot 10^{53} \cdot T$</td><td>$B_P^{G} = B_P^{PLTG} \cdot \left(K_q^{LT-G}\right) \cdot \left(K_M^{LT-G}\right)^{-1}$
$= \frac{\sqrt{c^G \cdot \hbar^G}}{{\ell_P^{G}}^2} =$
$= 2.15242780768654(56) \cdot$
$10^{57} \cdot Gs$</td></tr>
<tr><td>$\frac{\left(B_P^{SI}\right)_0 - B_P^{SI}}{u(B_P^{SI})_0} \cdot 100\% = 0.41\%$</td><td></td><td></td></tr>
<tr><td>$B_P^{PLTSI} = {t_P^{SI}}^{-1}$</td><td>$B_P^{PLTG} = c^G \cdot {t_P^{G}}^{-1}$</td><td>$c^G$</td></tr>
<tr><td colspan="3">$B_P^{PLT} = {t_P}^{-1}$</td></tr>
</table>

Name	Sign	SI, PLTSI	G, PLTG	$\frac{K^{G}_{SI}}{K^{PLTG}_{PLTSI}}$
Units of the magnetic H field (Magnetic field strength)	H	$A \cdot m^{-1}$	Oersted $Oe = cm^{-\frac{1}{2}} \cdot gm^{\frac{1}{2}} \cdot s^{-1}$	$\frac{4 \cdot \pi \cdot K_{\Delta e}}{10^3} \cdot \frac{m \cdot Oe}{A}$
		$A \cdot m^{-1} =$ $= 4.645916563156092 \cdot 10^{-61} \cdot H_P^{SI}$	$Oe = 3.6971029300851947 \cdot$ $10^{-59} \cdot H_P^{G}$	
		$\left(H_P^{SI}\right)_0 = \frac{c^{SI} \cdot e^{SI}}{\sqrt{(\alpha)_0} \cdot \left(\ell_P^{SI}\right)_0{}^2} =$ $= 2.152428(48) \cdot 10^{60} \cdot A \cdot m^{-1}$ (according to the initial data [11])	$\left(H_P^{G}\right)_0 = \frac{4 \cdot \pi \cdot \sqrt{c^G \cdot \hbar^G}}{\left(\ell_P^{G}\right)_0{}^2} =$ $= 2.704821(60) \cdot$ $10^{58} \cdot cm^{-\frac{1}{2}} \cdot gm^{\frac{1}{2}} \cdot s^{-1}$ (according to the initial data [11])	
		$\left(H_P^{SI}\right)_1 = \frac{4 \cdot \pi \cdot \sqrt{c^G \cdot \hbar^G} \cdot 10^3 \cdot A}{\ell_P^{G\,2} \cdot 4 \cdot \pi \cdot K_{\Delta e} \cdot m \cdot Oe} =$ $= 2.15242780709922(56) \cdot$ $10^{60} \cdot A \cdot m^{-1}$	$\left(H_P^{G}\right)_1 = H_P^{SI} \cdot \frac{K_{\Delta e}}{10^3} \cdot \frac{4 \cdot \pi \cdot m \cdot Oe}{A} =$ $= 2.70482055520417(26) \cdot$ $10^{58} \cdot cm^{-\frac{1}{2}} \cdot gm^{\frac{1}{2}} \cdot s^{-1}$	
		$H_P^{SI} = H_P^{PLTSI} \cdot \left(K_q^{LT-SI}\right)^{-1} =$ $= \frac{c^{SI} \cdot e^{SI}}{\sqrt{\alpha} \cdot \ell_P^{SI\,2}} =$ $= 2.15242780709922(56) \cdot$ $10^{60} \cdot A \cdot m^{-1}$	$H_P^{G} = H_P^{PLTG} \cdot \left(K_q^{LT-G}\right)^{-1} =$ $= \frac{4 \cdot \pi \cdot \sqrt{c^G \cdot \hbar^G}}{\ell_P^{G\,2}} =$ $= 2.70482055520417(70) \cdot$ $10^{58} \cdot cm^{-\frac{1}{2}} \cdot gm^{\frac{1}{2}} \cdot s^{-1}$	
		$\frac{\left(H_P^{SI}\right)_0 - H_P^{SI}}{u\left(H_P^{SI}\right)_0} \cdot 100\% = 0.37\%$		
		$H_P^{PLTSI} = c^{SI\,3} \cdot \ell_P^{SI\,-1} =$ $= 1.66706368055534(22) \cdot$ $10^{60} \cdot m^2 \cdot s^{-3}$	$H_P^{PLTG} = \frac{4 \cdot \pi \cdot c^{G\,3} \cdot \ell_P^{G\,-1}}{c^G} =$ $= 4 \cdot \pi \cdot c^{G\,2} \cdot \ell_P^{G\,-1} =$ $= 6.98781423233673(90) \cdot$ $10^{54} \cdot cm \cdot s^{-2}$	$\frac{4 \cdot \pi \cdot 10^4}{c^G} \cdot \frac{cm^2}{m^2}$
		$H_P^{PLT} = \ell_P{}^2 \cdot t_P{}^{-3}$		
Units of magnetic dipole moment	$\vec{m}$	$A \cdot m^2$	$erg/Gs = cm^{\frac{5}{2}} \cdot gm^{\frac{1}{2}} \cdot s^{-1}$	$K_{\Delta e} \cdot 10^3 \cdot \frac{erg}{A \cdot m^2 \cdot Gs}$
		$A \cdot m^2 =$ $= 1.1003773673224535 \cdot 10^{44} \cdot \vec{m}_P^{SI}$	$erg/Gs =$ $= 1.1003773670221981 \cdot 10^{41}$ $\cdot \vec{m}_P^{G}$	
		$\left(\vec{m}_P^{SI}\right)_0 = \frac{\left(\ell_P^{SI}\right)_0 \cdot c^{SI} \cdot e^{SI}}{\sqrt{(\alpha)_0}} =$ $= 9.08779(10) \cdot 10^{-45} \cdot A \cdot m^2$ (according to the initial data [11])	$\left(\vec{m}_P^{G}\right)_0 = \left(\ell_P^{G}\right)_0 \cdot \sqrt{c^G \cdot \hbar^G} =$ $= 9.08779(10) \cdot$ $10^{-42} \cdot erg/Gs$ (according to the initial data [11])	

Name	Sign	SI, PLTSI	G, PLTG	$\frac{K_{SI}^{G}}{K_{PLTSI}^{PLTG}}$
		$\left(\vec{m}_P^{SI}\right)_1 = \frac{\ell_P^G \cdot \sqrt{c^G \cdot \hbar^G} \cdot A \cdot m^2 \cdot Gs}{K_{\Delta e} \cdot 10^3 \cdot erg} = = 9.08779142225815(12) \cdot 10^{-45} \cdot A \cdot m^2$	$\left(\vec{m}_P^G\right)_1 = \vec{m}_P^{SI} \cdot \frac{K_{\Delta e} \cdot 10^3 \cdot erg}{A \cdot m^2 \cdot Gs} = = 9.08779142473790(12) \cdot 10^{-42} \cdot erg/Gs$	
		$\vec{m}_P^{SI} = \vec{m}_P^{PLTSI} \cdot \left(K_q^{LT-SI}\right)^{-1} = = \frac{\ell_P^{SI} \cdot c^{SI} \cdot e^{SI}}{\sqrt{\alpha}} = = 9.08779142225815(12) \cdot 10^{-45} \cdot A \cdot m^2$	$\vec{m}_P^G = \vec{m}_P^{PLTG} \cdot \left(K_q^{LT-G}\right)^{-1} = = \ell_P^G \cdot \sqrt{c^G \cdot \hbar^G} = = 9.08779142473790(12) \cdot 10^{-42} \cdot erg/Gs$	
		$\frac{\left(\vec{m}_P^{SI}\right)_0 - \vec{m}_P^{SI}}{u(\vec{m}_P^{SI})_0} \cdot 100\% = 1.42\%$		
		$\vec{m}_P^{PLTSI} = {\ell_P^{SI}}^2 \cdot {c^{SI}}^3 = = 7.03852968566048(18) \cdot 10^{-45} \cdot m^5 \cdot s^{-3}$	$\vec{m}_P^{PLTG} = {\ell_P^G}^2 \cdot {c^G}^3 \cdot \frac{1}{c^G} = = 2.34780078612267(61) \cdot 10^{-45} \cdot cm^4 \cdot s^{-2}$	$\frac{10^{10}}{c^G} \cdot \frac{cm^5}{m^5}$
		$\vec{m}_P^{PLT} = {\ell_P}^5 \cdot {t_P}^{-3}$		
Bohr magneton	μ_B	$\left(\mu_B^{SI}\right)_0 = \frac{e \cdot \hbar}{2 \cdot M_e} = 9.2740100783(28) \cdot 10^{-24} \cdot A \cdot m^2$ (according to [11])	$\left(\mu_B^G\right)_0 = \frac{\sqrt{\alpha \cdot \hbar^G \cdot c^G} \cdot \hbar^G}{2 \cdot M_e \cdot c^G} = = 9.27401008090(70) \cdot 10^{-21} \cdot erg/Gs$ (according to the initial data [11])	$\frac{K_{\Delta e} \cdot 10^3 \cdot erg}{A \cdot m^2 \cdot Gs}$
		$\left(\mu_B^{SI}\right)_1 = \mu_B^G \cdot \frac{A \cdot m^2 \cdot Gs}{K_{\Delta e} \cdot 10^3 \cdot erg} = = 9.2740100783126(18) \cdot 10^{-24} \cdot A \cdot m^2$	$\left(\mu_B^G\right)_1 = \mu_B^{SI} \cdot \frac{K_{\Delta e} \cdot 10^3 \cdot erg}{A \cdot m^2 \cdot Gs} = == 9.2740100808432(19)10^{-21} \cdot erg/Gs$	
		$\mu_B^{SI} = \mu_B^{PLTSI} \cdot \left(K_q^{LT-SI}\right)^{-1} = = \frac{e^{SI}}{2 \cdot M_e^{SI}} \cdot \hbar^{SI} = = 9.2740100783126(18) \cdot 10^{-24} \cdot A \cdot m^2$	$\mu_B^G = \mu_B^{PLTG} \cdot \left(K_q^{LT-G}\right)^{-1} = = \frac{\sqrt{\alpha}}{2 \cdot K_e^{rp}} \cdot \ell_P^G \cdot \sqrt{\hbar^G \cdot c^G} = = 9.2740100808432(19) \cdot 10^{-21} \cdot cm^{-\frac{5}{2}} \cdot gm^{\frac{1}{2}} \cdot s^{-1}$	
		$\frac{\left(\mu_B^{SI}\right)_0 - \mu_B^{SI}}{u(\mu_B^{SI})_0} \cdot 100\% = 0.45\%$		
		$\mu_B^{PLTSI} = \frac{\sqrt{\alpha}}{2 \cdot K_e^{rp}} \cdot {\ell_P^{SI}}^2 \cdot {c^{SI}}^3 = = 7.1827567566574(14) \cdot 10^{-24} \cdot m^5 \cdot s^{-3}$	$\mu_B^{PLTG} = \frac{\sqrt{\alpha}}{2 \cdot K_e^{rp}} \cdot {\ell_P^G}^2 \cdot {c^G}^3 \cdot \frac{1}{c^G} = = 2.3959097585628(46) \cdot 10^{-24} \cdot cm^4 \cdot s^{-2}$	$\frac{10^{10}}{c^G} \cdot \frac{cm^5}{m^5}$

Name	Sign	SI, PLTSI	G, PLTG	$\frac{K_{SI}^{G}}{K_{PLTSI}^{PLTG}}$
		$\mu_B^{PLT} = \frac{\sqrt{\alpha}}{2 \cdot K_e^{rp}} \cdot \ell_P{}^5 \cdot t_P{}^{-3}$		
Units of magnetic flux	Φ_m	Weber $1Wb = m^2 \cdot kg \cdot s^{-2} \cdot A^{-1}$	$Gs \cdot cm^2 = cm^{\frac{3}{2}} \cdot gm^{\frac{1}{2}} \cdot s^{-1}$	$\frac{10^8 \cdot Gs \cdot cm^2}{K_{\Delta e} \cdot Wb}$
		$1Wb =$ $= 1.7784905744634134 \cdot 10^{16} \cdot \Phi_{mP}^{SI}$	$Gs \cdot cm^2 =$ $= 1.778490574948703 \cdot 10^8 \cdot \Phi_{mP}^{G}$	
		$\left(\Phi_{mP}^{SI}\right)_0 = \frac{\sqrt{(\alpha)_0} \cdot \hbar^{SI}}{e^{SI}} =$ $= 5.62274557065(42) \cdot 10^{-17} \cdot Wb$ (according to the initial data [11])	$\left(\Phi_{mP}^{G}\right)_0 = \sqrt{c^G \cdot \hbar^G} =$ $= 5.622745569111846 \cdot$ $10^{-9} \cdot Gs \cdot cm^2$ (according to the initial data [11])	
		$\left(\Phi_{mP}^{SI}\right)_1 = \sqrt{c^G \cdot \hbar^G} \cdot \frac{K_{\Delta e} \cdot Wb}{10^8 \cdot Gs \cdot cm^2} =$ $= 5.622745570646101 \cdot$ $10^{-17} \cdot Wb$	$\left(\Phi_{mP}^{G}\right)_1 = \Phi_{mP}^{SI} \cdot \frac{10^8 \cdot Gs \cdot cm^2}{K_{\Delta e} \cdot Wb} =$ $= 5.622745569111847 \cdot$ $10^{-9} \cdot cm^{\frac{3}{2}} \cdot gm^{\frac{1}{2}} \cdot s^{-1}$	
		$\Phi_{mP}^{SI} = \Phi_{mP}^{PLTSI} \cdot \left(K_q^{LT-SI}\right) \cdot \left(K_M^{LT-SI}\right)^{-1} =$ $\frac{\sqrt{\alpha} \cdot \hbar^{SI}}{e^{SI}} = 5.622745570646102 \cdot$ $10^{-17} \cdot Wb$	$\Phi_{mP}^{G} = \Phi_{mP}^{PLTG} \cdot K_q^{LT-G} / K_M^{LT-G} =$ $= \sqrt{c^G \cdot \hbar^G} = 5.622745569111846 \cdot$ $10^{-9} \cdot cm^{\frac{3}{2}} \cdot gm^{\frac{1}{2}} \cdot s^{-1}$	
		$\frac{\left(\Phi_{mP}^{SI}\right)_0 - \Phi_{mP}^{SI}}{u(\Phi_{mP}^{SI})_0} \cdot 100\% = 0.93\%$		
		$\Phi_{mP}^{PLTSI} = \ell_P^{SI} \cdot c^{SI} =$ $= 4.8454110105569725 \cdot$ $10^{-27} \cdot m^2 \cdot s^{-1}$	$\Phi_{mP}^{PLTG} = \left(\ell_P^G \cdot c^G\right) \cdot c^G =$ $= 1.4526176768751387 \cdot$ $10^{-12} \cdot cm^3 \cdot s^{-2}$	$c^G \cdot \frac{cm^3}{m^2 \cdot s}$
		$\Phi_{mP}^{PLT} = \ell_P{}^2 \cdot t_P{}^{-1}$		
Magnetic flux quantum	Φ_0	$\left(\Phi_0^{SI}\right)_0 = \frac{\pi \cdot \hbar^{SI}}{e^{SI}} =$ $= 2.0678338484619290 \ldots \cdot$ $10^{-15} \cdot Wb$ (according to [11])	$\left(\Phi_0^{G}\right)_0 = \frac{\pi}{\sqrt{(\alpha)_0}} \cdot \sqrt{c^G \cdot \hbar^G} =$ $= 2.06783384790(16) \cdot$ $10^{-7} \cdot Gs \cdot cm^2$ (according to the initial data [11])	$\frac{10^8 \cdot Gs \cdot cm^2}{K_{\Delta e} \cdot Wb}$
		$\Phi_0^{SI} =$ $= 36.77623009045947 \cdot \Phi_{mP}^{SI}$	$\Phi_0^{G} =$ $= 36.77623009045947 \cdot \Phi_{mP}^{G}$	
		$\left(\Phi_0^{SI}\right)_1 =$ $= \frac{\pi}{\sqrt{\alpha}} \cdot \sqrt{c^G \cdot \hbar^G} \cdot \frac{K_{\Delta e} \cdot Wb}{10^8 \cdot Gs \cdot cm^2} =$ $= 2.0678338484619285 \cdot$ $10^{-15} \cdot Wb$	$\left(\Phi_0^{G}\right)_1 = \Phi_0^{SI} \cdot \frac{10^8 \cdot Gs \cdot cm^2}{K_{\Delta e} \cdot Wb} =$ $= 2.0678338478976880 \cdot$ $10^{-7} \cdot cm^{\frac{3}{2}} \cdot gm^{\frac{1}{2}} \cdot s^{-1}$	
		$\Phi_0^{SI} = \Phi_0^{PLTSI} \cdot \left(K_q^{LT-SI}\right) \cdot \left(K_M^{LT-SI}\right)^{-1} =$ $= \frac{\pi \cdot \hbar^{SI}}{e^{SI}} = 2.0678338484619290 \cdot$ $10^{-15} \cdot Wb$	$\Phi_0^{G} = \Phi_0^{PLTG} \cdot \left(K_q^{LT-G}\right) \cdot \left(K_M^{LT-G}\right)^{-1}$ $= \frac{\pi}{\sqrt{\alpha}} \cdot \sqrt{c^G \cdot \hbar^G} =$ $= 2.0678338478976874 \cdot$ $10^{-7} \cdot cm^{\frac{3}{2}} \cdot gm^{\frac{1}{2}} \cdot s^{-1}$	

Name	Sign	SI, PLTSI	G, PLTG	$K^{\frac{G}{SI}}$ $K^{\frac{PLTG}{PLTSI}}$
		$\left(\Phi_0^{SI}\right)_0 - \Phi_0^{SI} = 0$		
		$\Phi_0^{PLTSI} = \frac{\pi}{\sqrt{\alpha}} \cdot \ell_P^{SI} \cdot c^{SI} =$ $= 1.78195950207088(23) \cdot$ $10^{-25} \cdot m^2 \cdot s^{-1}$	$\Phi_0^{PLTG} = \frac{\pi}{\sqrt{\alpha}} \cdot \left(\ell_P^G \cdot c^G\right) \cdot c^G =$ $= 5.34218019182288(69) \cdot$ $10^{-11} \cdot cm^3 \cdot s^{-2}$	$c^G \cdot \frac{cm^3}{m^2 \cdot s}$
		$\Phi_0^{PLT} = \frac{\pi \cdot {\ell_P}^2}{\sqrt{\alpha} \cdot t_P}$		
Units electrical resistance	R	Ohm - $\Omega = m^2 \cdot kg \cdot s^{-3} \cdot A^{-2}$	$s \cdot cm^{-1}$	$\frac{10^9 \cdot s}{{K_{\Delta e}}^2 \cdot {c^G}^2 \cdot cm \cdot \Omega}$
		$\Omega = 0.03335640950161154 \cdot R_P^{SI}$	$s \cdot cm^{-1} = 29979245800 \cdot R_P^G$	
		$\left(R_P^{SI}\right)_0 = \frac{(\alpha)_0 \cdot \hbar^{SI}}{{\mathrm{e}^{SI}}^2} =$ $= 29.9792458164(45) \cdot \Omega$ (according to the initial data [11])	$\left(R_P^G\right)_0 = R_P^G$	
		$\left(R_P^{SI}\right)_1 = R_P^G \cdot \frac{{K_{\Delta e}}^2 \cdot {c^G}^2 \cdot cm \cdot \Omega}{10^9 \cdot s} =$ $= 29.979245816360630 \cdot \Omega$ $\left(\left(R_P^{SI}\right)_2 = \frac{R_P^{SI}}{{K_{\Delta e}}^2} = \right.$ $= 29.979245800000005 \cdot \Omega =$ $\left. = c^{SI} \cdot 10^{-7} \cdot \Omega \cdot s \cdot m^{-1}\right)$	$\left(R_P^G\right)_1 = R_P^{SI} \cdot \frac{10^9 \cdot s}{{K_{\Delta e}}^2 \cdot {c^G}^2 \cdot cm \cdot \Omega} =$ $= 3.335640951981521 \cdot$ $10^{-11} \cdot s \cdot cm^{-1}$	
		$R_P^{SI} = R_P^{PLTSI} \cdot \left(K_M^{LT-SI}\right)^{-1} \cdot \left(K_q^{LT-SI}\right)^2$ $= \frac{\alpha \cdot \hbar^{SI}}{{\mathrm{e}^{SI}}^2} = 29.979245816360635 \cdot$ $m^2 \cdot kg \cdot s^{-3} \cdot A^{-2}$	$R_P^G = R_P^{PLTG} \cdot \left(K_M^{LT-G}\right)^{-1} \cdot \left(K_q^{LT-G}\right)^2$ $= {c^G}^{-1} = 3.33564095198152 \cdot$ $10^{-11} \cdot s \cdot cm^{-1}$	
		$\frac{\left(R_P^{SI}\right)_0 - R_P^{SI}}{u(R_P^{SI})_0} \cdot 100\% = 0.87\%$		
		$R_P^{PLTSI} = {c^{SI}}^{-1} =$ $= 3.33564095198152 \cdot 10^{-9} \cdot s \cdot m^{-1}$	$R_P^{PLTG} = {c^G}^{-1} =$ $= 3.33564095198152 \cdot$ $10^{-11} \cdot s \cdot cm^{-1}$	$10^{-2} \cdot \frac{cm}{m}$
		$R_P^{PLT} = {\ell_P}^{-1} \cdot {t_P}^1$		
Units of resistivity	ρ	$\Omega \cdot m$	s	$\frac{10^9 \cdot s}{{K_{\Delta e}}^2 \cdot {c^G}^2 \cdot cm \cdot \Omega}$
		$\Omega \cdot m = 2.063808410216411 \cdot$ $10^{33} \cdot \rho_P^{SI}$	$s = 1.8548584976148537 \cdot$ $10^{43} \cdot t_P$	
		$\left(\rho_P^{SI}\right)_0 = \frac{(\alpha)_0 \cdot \left(\ell_P^{SI}\right)_0 \cdot \hbar^{SI}}{{\mathrm{e}^{SI}}^2} =$ $= 4.845411(54) \cdot 10^{-34} \cdot \Omega \cdot m$ (according to the initial data [11])	$\left(\rho_P^G\right)_0 = \rho_P^G = t_P^G$	

Name	Sign	SI, PLTSI	G, PLTG	K_{SI}^{G} K_{PLTSI}^{PLTG}
		$\left(\rho_P^{SI}\right)_1 = \rho_P^{G} \cdot \frac{K_{\Delta e}{}^2 \cdot c^{G^2} \cdot cm \cdot \Omega}{10^9 \cdot s} =$ $= 4.84541101320127(63) \cdot$ $10^{-34} \cdot m^3 \cdot kg \cdot s^{-3} \cdot A^{-2}$	$\left(\rho_P^{G}\right)_1 = \rho_P^{SI} \cdot \frac{10^9 \cdot s}{K_{\Delta e}{}^2 \cdot c^{G^2} \cdot cm \cdot \Omega} =$ $= 5.39124683249904(70) \cdot$ $10^{-44} \cdot s$	
		$\rho_P^{SI} = \rho_P^{PLTSI} \cdot \left(K_M^{LT-SI}\right)^{-1} \cdot \left(K_q^{LT-SI}\right)^2$ $= \frac{\alpha \cdot t_P^{SI} \cdot c^{SI} \cdot \hbar^{SI}}{e^{SI^2}} =$ $= 4.84541101320127(63) \cdot$ $10^{-34} \cdot m^3 \cdot kg \cdot s^{-3} \cdot A^{-2}$	$\rho_P^{G} = \rho_P^{PLTG} \cdot \left(K_M^{LT-G}\right)^{-1} \cdot \left(K_q^{LT-G}\right)^2$ $= t_P^{PLTG} \cdot \frac{\ell_P^{G^2} \cdot c^{G^4} \cdot \hbar^G}{\hbar^G \cdot c^G \cdot \ell_P^{G^2} \cdot c^{G^3}} = t_P^G =$ $= 5.39124683249904(70) \cdot$ $10^{-44} \cdot s$	
		$\frac{\left(\rho_P^{SI}\right)_0 - \rho_P^{SI}}{u(\rho_P^{SI})_0} \cdot 100\% = 0.02\%$		
		$\rho_P^{PLTSI} = t_P^{SI} =$ $= 5.39124683249904(70) \cdot 10^{-44} \cdot s$	$\rho_P^{PLTG} = t_P^{G} =$ $= 5.39124683249904(70) \cdot$ $10^{-44} \cdot s$	1
		$\rho_P^{PLT} = t_P$		
Units of electrical capacity	C	$F = s^4 \cdot A^2 \cdot m^{-2} \cdot kg^{-1}$	cm	$\frac{K_{\Delta e}{}^2 \cdot c^{G^2} \cdot cm}{10^9 \cdot F}$
		$F = 5.560725885456108 \cdot 10^{44} \cdot C_P^{SI}$	$cm = 6.187141964775024 \cdot$ $10^{32} \cdot \ell_P^G$	
		$\left(C_P^{SI}\right)_0 = \left(\ell_P^{SI}\right)_0 \cdot \frac{(e^{SI})^2}{\hbar^{SI} \cdot (\alpha)_0 \cdot c^{SI}} =$ $= 1.798326(20) \cdot 10^{-45} \cdot F$ (according to the initial data [11])	$\left(C_P^{G}\right)_0 = \left(\ell_P^{G}\right)_0 = 1.616255(18) \cdot$ $10^{-33} \cdot cm$	
		$\left(C_P^{SI}\right)_1 = C_P^{G} \cdot \frac{10^9 \cdot F}{K_{\Delta e}{}^2 \cdot c^{G^2} \cdot cm} =$ $= 1.79832637069104(23) \cdot$ $10^{-45} \cdot s^4 \cdot A^2 \cdot m^{-2} \cdot kg^{-1}$	$\left(C_P^{G}\right)_1 = C_P^{SI} \cdot \frac{K_{\Delta e}{}^2 \cdot c^{G^2} \cdot cm}{10^9 \cdot F}$ $= 1.61625513959960(21) \cdot$ $10^{-33} \cdot cm$	
		$C_P^{SI} = \ell_P^{SI} \cdot \left(K_q^{LT-SI}\right)^{-2} \cdot K_M^{LT-SI} =$ $= \ell_P^{SI} \cdot \frac{(e^{SI})^2}{\hbar^{SI} \cdot \alpha \cdot c^{SI}} =$ $= 1.79832637069104(23) \cdot$ $10^{-45} \cdot s^4 \cdot A^2 \cdot m^{-2} \cdot kg^{-1}$	$C_P^{G} = C_P^{PLTG} \cdot \left(K_q^{LT-G}\right)^{-2} \cdot K_M^{LT-G} =$ $= \ell_P^{G} \cdot \frac{\hbar^G \cdot c^G \cdot \ell_P^{G^2} \cdot c^{G^3}}{\ell_P^{G^2} \cdot c^{G^4} \cdot \hbar^G} = \ell_P^G =$ $= 1.61625513959960(21) \cdot$ $10^{-33} \cdot cm$	
		$\frac{\left(C_P^{SI}\right)_0 - C_P^{SI}}{u(C_P^{SI})_0} \cdot 100\% = 1.9\%$		
		$C_P^{PLTSI} = \ell_P^{SI}$	$C_P^{PLTG} = \ell_P^{G}$	$10^2 \cdot \frac{cm}{m}$
		$C_P^{PLT} = \ell_P$		

Name	Sign	SI, PLTSI	G, PLTG	K_{SI}^{G} K_{PLTSI}^{PLTG}
Inductance units	L	$H = m^2 \cdot kg \cdot s^{-2} \cdot A^{-2}$	$s^2 \cdot cm^{-1}$	
		$H = 6.1871419613985 \cdot 10^{41} \cdot L_P^{SI}$	$s^2 \cdot cm^{-1} =$ $= 5.5607258824214405 \cdot 10^{53} \cdot L_P^{G}$	
		$\left(L_P^{SI}\right)_0 = \left(\ell_P^{SI}\right)_0 \cdot \frac{(\alpha)_0 \cdot \hbar^{SI}}{c^{SI} \cdot \mathrm{e}^{SI^2}} =$ $= 1.616255(18) \cdot 10^{-42} \cdot H$ (according to the initial data [11])	$\left(L_P^{G}\right)_0 = \left(\ell_P^{SI}\right)_0 \cdot c^{G^{-2}} =$ $= 1.798326(20) \cdot 10^{-54} \cdot s^2 \cdot cm^{-1}$ (according to the initial data [11])	$\frac{10^9 \cdot s^2}{K_{\Delta e}{}^2 \cdot c^{G^2} \cdot cm \cdot \mathrm{H}}$
		$\left(L_P^{SI}\right)_1 = L_P^{G} \cdot \frac{K_{\Delta e}{}^2 \cdot c^{G^2} \cdot cm \cdot \mathrm{H}}{10^9 \cdot s^2} =$ $= 1.61625514048164(23) \cdot 10^{-42} \cdot$ $m^2 \cdot kg \cdot s^{-2} \cdot A^{-2}$	$\left(L_P^{G}\right)_1 = L_P^{SI} \cdot \frac{10^9 \cdot s^2}{K_{\Delta e}{}^2 \cdot c^{G^2} \cdot cm \cdot \mathrm{H}} =$ $= 1.79832637167244(23) \cdot$ $10^{-54} \cdot s^2 \cdot cm^{-1}$	
		$L_P^{SI} = L_P^{PLTSI} \cdot \left(K_M^{LT-SI}\right)^{-1} \cdot \left(K_q^{LT-SI}\right)^2$ $= \ell_P^{SI} \cdot \frac{\alpha \cdot \hbar^{SI}}{c^{SI} \cdot \mathrm{e}^{SI^2}} =$ $= 1.61625514048164(23) \cdot 10^{-42} \cdot$ $m^2 \cdot kg \cdot s^{-2} \cdot A^{-2}$	$L_P^{G} = L_P^{PLTG} \cdot \frac{\ell_P^{G^2} \cdot c^{G^4} \cdot \hbar^{G}}{\hbar^{G} \cdot c^{G} \cdot \ell_P^{G^2} \cdot c^{G^3}} =$ $= \ell_P^{G} \cdot c^{G^{-2}} =$ $= 1.79832637167244(23) \cdot$ $10^{-54} \cdot s^2 \cdot cm^{-1}$	
		$\frac{\left(L_P^{SI}\right)_0 - L_P^{SI}}{u(L_P^{SI})_0} \cdot 100\% = 0.78\%$		
		$L_P^{PLTSI} = \ell_P^{SI} \cdot c^{SI^{-2}}$	$L_P^{PLTG} = \ell_P^{G} \cdot c^{G^{-2}}$	$10^2 \cdot \frac{cm}{m}$
		$L_P^{PLT} = \ell_P{}^{-1} \cdot t_P{}^2$		
Quantum of electrical resistance (von Klitzing constant)	R_K	$(R_K)_0 = \frac{h^{SI}}{e^{SI^2}} =$ $= 25812.8074593045030... \cdot \Omega$ (according to [11])	$\left(R_K^{G}\right)_0 = \frac{h^{G}}{(\alpha)_0 \cdot \hbar^{G} \cdot c^{G}} =$ $= \frac{2 \cdot \pi}{(\alpha)_0 \cdot c^{G}} =$ $= 2.87206216508(43) \cdot$ $10^{-8} \cdot s \cdot cm^{-1}$ (according to the initial data [11])	
		$R_K^{SI} = \frac{2 \cdot \pi}{\alpha} \cdot R_P^{SI}$	$R_K^{G} = \frac{2 \cdot \pi}{\alpha} \cdot R_P^{G}$	$\frac{10^9 \cdot s}{K_{\Delta e}{}^2 \cdot c^{G^2} \cdot cm \cdot \Omega}$
		$R_{K\,1}^{SI} = R_K^{G} \cdot \frac{K_{\Delta e}{}^2 \cdot c^{G^2} \cdot cm \cdot \Omega}{10^9 \cdot s} =$ $= 25812.8074593045000 \cdot$ $m^2 \cdot kg \cdot s^{-3} \cdot A^{-2}$	$R_{K\,1}^{G} = R_K^{SI} \cdot \frac{10^9 \cdot s}{K_{\Delta e}{}^2 \cdot c^{G^2} \cdot cm \cdot \Omega} =$ $= 2.87206216508226530 \cdot$ $10^{-8} \cdot s \cdot cm^{-1}$	
		$R_K^{SI} = R_K^{PLTSI} \cdot \left(K_M^{LT-SI}\right)^{-1} \cdot \left(K_q^{LT-SI}\right)^2$ $= h^{SI} \cdot e^{SI^{-2}} =$ $= 25812.8074593045030... \cdot$ $m^2 \cdot kg \cdot s^{-3} \cdot A^{-2}$	$R_K^{G} = R_K^{PLTG} \cdot \left(K_M^{LT-G}\right)^{-1} \cdot \left(K_q^{LT-G}\right)^2$ $= 2 \cdot \pi \cdot c^{G^{-1}} \cdot \alpha^{-1} =$ $= 2.87206216508226530 \cdot$ $10^{-8} \cdot s \cdot cm^{-1}$	
		$(R_K)_0 - R_K^{SI} = 0$		

Name	Sign	SI, PLTSI	G, PLTG	$\frac{K^{G}_{SI}}{K^{PLTG}_{PLTSI}}$
		$R_K^{PLTSI} = 2\cdot\pi\cdot {c^{SI}}^{-1}\cdot\alpha^{-1} =$ $= 2.87206216508226530\cdot$ $10^{-6}\cdot s\cdot m^{-1}$	$R_K^{PLTG} = 2\cdot\pi\cdot {c^{G}}^{-1}\cdot\alpha^{-1} =$ $= 2.87206216508226530\cdot$ $10^{-8}\cdot s\cdot cm^{-1}$	$10^{-2}\cdot\frac{m}{cm}$
		$R_K^{PLT} = \frac{2\cdot\pi\cdot t_P}{\alpha\cdot\ell_P}$		
Characteristic impedance of vacuum	Z_0	$\left(Z_0^{SI}\right)_0 = \sqrt{\frac{\mu_0}{\varepsilon_0}} =$ $= 376.730313668(57)\cdot\Omega$ (according to [11])	$Z_0^G = \frac{4\cdot\pi}{c^G}$	$\frac{10^9\cdot s}{{K_{\Delta e}}^2\cdot {c^G}^2\cdot cm\cdot\Omega}$
		$Z_0^{SI} = 4\cdot\pi\cdot R_P^{SI}$	$Z_0^G = 4\cdot\pi\cdot R_P^G$	
		$\left(Z_0^{SI}\right)_1 = Z_0^G\cdot\frac{{K_{\Delta e}}^2\cdot {c^G}^2\cdot cm\cdot\Omega}{10^9\cdot s} =$ $= 376.73031366736440$	$\left(Z_0^{G}\right)_1 = Z_0^{SI}\cdot\frac{10^9\cdot s}{{K_{\Delta e}}^2\cdot {c^G}^2\cdot cm\cdot\Omega} =$ $= 4.1916900439033640\cdot$ $10^{-10}\cdot s\cdot cm^{-1}$	
		$Z_0^{SI} = Z_0^{PLTSI}\cdot\left(K_M^{LT-SI}\right)^{-1}\cdot\left(K_q^{LT-SI}\right)^2$ $= 4\cdot\pi\cdot\alpha\cdot\hbar^{SI}\cdot {e^{SI}}^{-2} =$ $= 376.73031366736444\cdot\Omega$	$Z_0^G = Z_0^{PLTG} = 4\cdot\pi\cdot {c^G}^{-1} =$ $= 4.1916900439033630\cdot$ $10^{-10}\cdot s\cdot cm^{-1}$	
		$\frac{\left(Z_0^{SI}\right)_0 - Z_0^{SI}}{u(Z_0^{SI})_0}\cdot 100\% = 1.12\%$		
		$Z_0^{PLTSI} = 4\cdot\pi\cdot {c^{SI}}^{-1} =$ $= 4.191690043903363\cdot$ $10^{-8}\cdot s\cdot m^{-1}$	$Z_0^{PLTG} = 4\cdot\pi\cdot {c^{G}}^{-1} =$ $= 4.191690043903363\cdot$ $10^{-10}\cdot s\cdot cm^{-1}$	
		$Z_0^{PLT} = 4\cdot\pi\cdot t_P\cdot {\ell_P}^{-1}$		
Josephson constant	K_j	$\left(K_j\right)_0 = \frac{2\cdot e}{h} =$ $= 4.83597848416983660...\cdot$ $10^{14}\cdot Hz\cdot V^{-1}$ (according to [11])	$\left(K_j^G\right)_0 = \frac{2\cdot\sqrt{(\alpha)_0\cdot\hbar^G\cdot c^G}}{h^G} =$ $= 1.44978987700(11)\cdot$ $10^{17}\cdot Hz\cdot statV^{-1}$ (according to the initial data [11])	$\frac{K_{\Delta e}\cdot c^G\cdot\frac{s}{cm}}{10^8}\cdot\frac{V}{statV}$
		$K_j^{SI} = \frac{\sqrt{\alpha}}{\pi\cdot t_P^{SI}}\cdot\frac{1}{U_P^{SI}} =$ $= 5.04363414371840(66)\cdot$ $10^{41}\cdot\frac{Hz}{U_P^{SI}}$	$K_j^G = \frac{\sqrt{\alpha}}{\pi\cdot t_P^G}\cdot\frac{1}{U_P^G} =$ $= 5.04363414371840(66)\cdot$ $10^{41}\cdot\frac{Hz}{U_P^G}$	
		$\left(K_j^{SI}\right)_1 = \frac{\sqrt{\alpha}}{\pi}\cdot\sqrt{\frac{c^G}{\hbar^G}}\cdot\frac{10^8\cdot statV}{K_{\Delta e}\cdot c^G\cdot\frac{s}{cm}\cdot V}$ $= 4.83597848416983660\cdot$ $10^{14}\cdot Hz\cdot V^{-1}$	$\left(K_j^G\right)_1 = K_j^{SI}\cdot\frac{K_{\Delta e}\cdot c^G\cdot\frac{s}{cm}}{10^8}\cdot\frac{V}{statV}$ $= 1.4497898769999877\cdot$ $10^{17}\cdot Hz\cdot statV^{-1}$	

Name	Sign	SI, PLTSI	G, PLTG	$\frac{K^{G}_{SI}}{K^{PLTG}_{PLTSI}}$
		$K_j^{SI} = K_j^{PLTSI} \cdot \left(K_q^{LT-SI}\right)^{-1} \cdot \left(K_M^{LT-SI}\right) = \frac{e^{SI}}{\pi \cdot \hbar^{SI}} = 4.83597848416983660 \cdot 10^{14} \cdot Hz \cdot V^{-1}$	$K_j^G = K_j^{PLTG} \cdot \left(K_q^{LT-G}\right)^{-1} \cdot \left(K_M^{LT-G}\right) = \frac{\sqrt{\alpha}}{\pi} \cdot \sqrt{\frac{c^G}{\hbar^G}} = 1.4497898769999877 \cdot 10^{17} \cdot Hz \cdot statV^{-1}$	
		$\left(K_j\right)_0 - K_j^{SI} = 0$		
		$K_j^{PLTSI} = \frac{\sqrt{\alpha}}{\pi} \cdot {\ell_P^{SI}}^{-1} \cdot {c^{SI}}^{-1} = 5.61179981272222(73) \cdot 10^{24} \cdot s \cdot m^{-2}$	$K_j^{PLTG} = \frac{\sqrt{\alpha}}{\pi} \cdot {\ell_P^G}^{-1} \cdot {c^G}^{-1} = 5.61179981272222(73) \cdot 10^{20} \cdot s \cdot cm^{-2}$	
		$K_j^{PLT} = \frac{\sqrt{\alpha}}{\pi} \cdot t_P \cdot {\ell_P}^{-2}$		
Electron charge to mass quotient	$\frac{e}{M_e}$	$\left(\frac{(e^{SI})_0}{M_e^{SI}}\right)_0 = 1.75882001076(53) \cdot 10^{11} \cdot \frac{C}{kg}$ (according to [11])	$\left(\frac{(e^{G})_0}{M_e^{G}}\right)_0 = 5.2728097435(17) \cdot 10^{17} \cdot \frac{Fr}{gm}$ (according to the initial data [11])	
		$\left(\frac{e^{SI}}{M_e^{SI}}\right)_1 = \frac{\ell_P^G \cdot c^G}{K_e^{rm}} \cdot \sqrt{\frac{\alpha \cdot c^G}{\hbar^G}} \cdot \frac{10^4}{K_{\Delta e} \cdot c^G} \cdot \frac{C \cdot gm}{kg \cdot Fr} = 1.7588200107628(34) \cdot 10^{11} \cdot \frac{C}{kg}$	$\left(\frac{e^{G}}{M_e^{G}}\right)_1 = \frac{e^{SI}}{M_e^{SI}} \cdot \frac{K_{\Delta e} \cdot c^G}{10^4} \cdot \frac{kg \cdot Fr}{C \cdot gm} = 5.2728097435004(10) \cdot 10^{17} \cdot cm^{\frac{3}{2}} \cdot s^{-1} \cdot gm^{-\frac{1}{2}}$	$\frac{K_{\Delta e} \cdot c^G}{10^4} \cdot \frac{kg \cdot Fr}{C \cdot gm}$
		$\frac{e^{SI}}{M_e^{SI}} = \frac{\sqrt{\alpha} \cdot \left(K_q^{LT-SI}\right)^{-1}}{K_e^{rm} \cdot (K_M^{LT-SI})^{-1}} = \frac{\alpha^2 \cdot c^{SI} \cdot e^{SI}}{4 \cdot \pi \cdot R_\infty^{SI} \cdot \hbar^{SI}} = 1.7588200107628(34) \cdot 10^{11} \cdot \frac{C}{kg}$	$\frac{e^G}{M_e^G} = \frac{\sqrt{\alpha} \cdot \left(K_q^{LT-G}\right)^{-1}}{K_e^{rm} \cdot (K_M^{LT-G})^{-1}} = \frac{\ell_P^G \cdot c^G}{K_e^{rm}} \cdot \sqrt{\frac{\alpha \cdot c^G}{\hbar^G}} = 5.2728097435003(10) \cdot 10^{17} \cdot cm^{\frac{3}{2}} \cdot s^{-1} \cdot gm^{-\frac{1}{2}}$	
		$\frac{\left(\frac{(e^{SI})_0}{M_e^{SI}}\right)_0 - \frac{e}{M_e}}{u\left(\frac{(e^{SI})_0}{M_e^{SI}}\right)_0} \cdot 100\% = 0.53\%$		
		$\frac{e^{PLTSI}}{M_e^{PLTSI}} = \frac{\sqrt{\alpha}}{K_e^{rm}} = 2.0409821588991(39) \cdot 10^{21}$	$\frac{e^{PLTG}}{M_e^{PLTG}} = \frac{\sqrt{\alpha}}{K_e^{rm}} = 2.0409821588991(39) \cdot 10^{21}$	1
		$\frac{e^{PLT}}{M_e^{PLT}} = \frac{\sqrt{\alpha} \cdot t_P \cdot {\ell_P}^{-2}}{K_e^{rm} \cdot t_P \cdot {\ell_P}^{-2}} = \frac{\sqrt{\alpha}}{K_e^{rm}} = 2.0409821588991(39) \cdot 10^{21}$		

Name	Sign	SI, PLTSI	G, PLTG	$K^{\frac{G}{SI}}$ $K^{\frac{PLTG}{PLTSI}}$
Bohr radius	a_0	$\left(a_0^{SI}\right)_0 = \frac{\hbar}{M_e^{SI} \cdot c \cdot (\alpha)_0} =$ $= 5.29177210903(80) \cdot 10^{-11} \cdot m$ (according to [11])	$\left(a_0^{G}\right)_0 = \frac{\hbar^G}{M_e^{G} \cdot c^G \cdot (\alpha)_0} =$ $= 5.29177210903(80) \cdot 10^{-9} \cdot cm$ (according to [11])	$10^2 \frac{cm}{m}$
		$a_0^{SI} = a_0^{PLTSI} = \frac{\ell_P^{SI}}{K_e^{rm} \cdot \alpha}$	$a_0^{G} = a_0^{PLTG} = \frac{\ell_P^{G}}{K_e^{rm} \cdot \alpha}$	
		$\frac{\left(a_0^{SI}\right)_0 - a_0^{SI}}{u\left(a_0^{SI}\right)_0} \cdot 100\% = 0.55\%$		
		$a_0^{PLTSI} = \frac{\ell_P^{SI}}{K_e^{rm} \cdot \alpha} =$ $= 5.2917721090256(10) \cdot 10^{-11} \cdot m$	$a_0^{PLTG} = \frac{\ell_P^{G}}{K_e^{rm} \cdot \alpha} =$ $= 5.2917721090256(10) \cdot$ $10^{-9} \cdot cm$	
		$a_0^{PLT} = \frac{\ell_P}{K_e^{rm} \cdot \alpha} = 3.2740945283779(63) \cdot 10^{24} \cdot \ell_P$		
Units of electric conductance	G	Siemens $S = sec^3 \cdot A^2 \cdot m^{-2} \cdot kg^{-1}$	$cm \cdot s^{-1}$	$\frac{{K_{\Delta e}}^2 \cdot {c^G}^2 \cdot cm}{10^9 \cdot s \cdot S}$
		$S = 29.97924581636063 \cdot G_P^{SI}$	$\frac{cm}{s} = 3.3356409519815204 \cdot$ $10^{-11} \cdot G_P^G$	
		$\left(G_P^{SI}\right)_0 = \frac{{e^{SI}}^2}{(\alpha)_0 \cdot \hbar^{SI}} =$ $= 0.0333564095016(50) \cdot S$ (according to the initial data [11])	$\left(G_P^{G}\right)_0 = G_P^G = G_P^{PLTG} = c^G$	
		$\left(G_P^{SI}\right)_1 = G_P^G \cdot \frac{10^9 \cdot s \cdot S}{{K_{\Delta e}}^2 \cdot {c^G}^2 \cdot cm} =$ $= 0.03335640950161155 \cdot S$	$\left(G_P^{G}\right)_1 = G_P^{SI} \cdot \frac{{K_{\Delta e}}^2 \cdot {c^G}^2 \cdot cm}{10^9 \cdot s \cdot S} =$ $= 29979245800 \cdot cm \cdot s^{-1} = c^G$	
		$G_P^{SI} = G_P^{PLTSI} \cdot K_M^{LT-SI} \cdot \left(K_q^{LT-SI}\right)^{-2} =$ $= c^{SI} \cdot \frac{{e^{SI}}^2}{\alpha \cdot c^{SI} \cdot \hbar^{SI}} =$ $= 0.03335640950161154 \cdot S$	$G_P^G = G_P^{PLTG} = c^G$	
		$\frac{\left(G_P^{SI}\right)_0 - G_P^{SI}}{u\left(G_P^{SI}\right)_0} \cdot 100\% = 0.23\%$		
		$G_P^{PLTSI} = c^{SI}$	$G_P^{PLTG} = c^G$	$10^2 \frac{cm}{m}$
		$G_P^{PLT} = \ell_P \cdot {t_P}^{-1}$		
Conductance quantum	G_0	$(G_0)_0 = \frac{2 \cdot e^2}{h} = 7.748091729 \ldots$ $\cdot 10^{-5} \cdot S$ (according to [11])	$\left(G_0^G\right)_0 = \frac{2 \cdot \alpha \cdot c^G \cdot \hbar^G}{h^G} = \frac{\alpha}{\pi} \cdot c^G$	$\frac{{K_{\Delta e}}^2 \cdot {c^G}^2 \cdot cm}{10^9 \cdot s \cdot S}$
		$G_0 = 2.3228194657729335 \cdot 10^{-3} \cdot G_P^{SI}$	$G_0^G = \frac{\alpha}{\pi} \cdot G_P^G$	

Name	**Sign**	**SI, PLTSI**	**G, PLTG**	$K^{\frac{G}{SI}}$ $K^{\frac{PLTG}{PLTSI}}$
		$\left(G_0^{SI}\right)_1 = G_0^G \cdot \frac{10^9 \cdot s \cdot S}{{K_{\Delta e}}^2 \cdot {c^G}^2 \cdot cm} = $ $= 7.748091729863654 \cdot 10^{-5} \cdot S$	$\left(G_0^G\right)_1 = G_0^{SI} \cdot \frac{{K_{\Delta e}}^2 \cdot {c^G}^2 \cdot cm}{10^9 \cdot s \cdot S} =$ $= 69636375.71343146 \cdot cm \cdot s^{-1}$	
		$G_0^{SI} = G_0^{PLTSI} \cdot K_M^{LT-SI} \cdot \left(K_q^{LT-SI}\right)^{-2} =$ $= \frac{{e^{SI}}^2}{\pi \cdot \hbar^{SI}} =$ $= 7.748091729863652 \cdot 10^{-5} \cdot S$	$G_0^G = G_0^{PLTG} = \frac{\alpha}{\pi} \cdot c^G$	
		$(G_0)_0 - G_0^{SI} = 0$		
		$G_0^{PLTSI} = \frac{\alpha}{\pi} \cdot c^{SI} =$ $= 6.963637571343146 \cdot 10^5 \cdot m \cdot s^{-1}$	$G_0^{PLTG} = \frac{\alpha}{\pi} \cdot c^G =$ $= 6.963637571343146 \cdot 10^7 \cdot cm \cdot s^{-1}$	
		$G_0^{PLT} = \frac{\alpha \cdot \ell_P}{\pi \cdot t_P}$		
Fermi coupling constant	G_F	$\left(G_F^{SI}\right)_0 = \frac{1.1663787(6) \cdot (\hbar^{SI} \cdot c^{SI})^3}{GeV} =$ $= 1.43585103(74) \cdot 10^{-62} \cdot J \cdot m^3$ (according to the initial data [11])	$\left(G_F^G\right)_0 = 1.43585103(74) \cdot 10^{-49} \cdot erg \cdot cm^3$	$10^{13} \cdot \frac{erg \cdot cm^3}{J \cdot m^3}$
		$G_F^{PLTSI} = \left(G_F^{SI}\right)_0 \cdot \left(K_M^{LT-SI}\right)^{-1} =$ $= 9.5833019(49) \cdot 10^{-73} \cdot \frac{m^8}{s^4}$	$G_F^{PLTG} = 9.5833019(49) \cdot 10^{-57} \cdot \frac{cm^8}{s^4}$	$10^{16} \cdot \frac{cm^8}{m^8}$
		$G_F^{PLT} = \frac{G_F^{PLTSI}}{(\ell_P^{SI} \cdot c^{SI})^4} = 1.73857200(90) \cdot 10^{33} \cdot \frac{{\ell_P}^8}{{t_P}^4}$		
Possible effective charge of the weak interaction for a proton	g_F	$g_F^{SI} = \frac{2 \cdot (\pi \cdot G_F)^{\frac{1}{2}} \cdot M_{Pr} \cdot c}{\hbar} =$ $= 2.01977016(52) \cdot 10^{-15} \cdot \frac{kg^{\frac{1}{2}} \cdot m^{\frac{3}{2}}}{s}$	$g_F^G = g_F^{PLTG} \cdot \frac{\sqrt{\hbar^{PLTG} \cdot c^G}}{\ell_P^G \cdot c^G} =$ $= 6.3870741(17) \cdot 10^{-11} \cdot \frac{gm^{\frac{1}{2}} \cdot cm^{\frac{3}{2}}}{s}$	$\sqrt{10^{-9} \cdot \frac{gm \cdot cm^3}{kg \cdot m^3}}$
		$g_F^{PLTSI} =$ $= \frac{2 \cdot \left(\pi \cdot G_F^{PLTSI}\right)^{\frac{1}{2}} \cdot M_{Pr}^{PLTSI} \cdot c^{SI}}{\hbar^{PLTSI}} =$ $= 1.65007941(43) \cdot 10^{-20} \cdot \frac{m^3}{s^2}$	$g_F^{PLTG} =$ $= \frac{2 \cdot \left(\pi \cdot G_F^{PLTG}\right)^{\frac{1}{2}} \cdot M_{Pr}^{PLTG} \cdot c^G}{\hbar^{PLTG}} =$ $= 1.65007941(43) \cdot 10^{-14} \cdot \frac{cm^3}{s^2}$	$10^6 \cdot \frac{cm^3}{m^3}$

Name	Sign	SI, PLTSI	G, PLTG	K^{G}_{SI} K^{PLTG}_{PLTSI}
		$g_F^{PLT}=\frac{2\cdot(\pi\cdot G_F^{PLT})^{\frac{1}{2}}\cdot K_{Pr}^{rm}\cdot\frac{{\ell_P}^3}{{t_P}^2}\cdot c^{PLT}}{\hbar^{PLT}}=0.0113593510(29)\cdot\frac{{\ell_P}^3}{{t_P}^2}$		
Boltzmann constant	k	$(k^{SI})_0=1.380649\cdot10^{-23}\cdot J/K$ (according to [5])	$(k^{G})_0=1.380649\cdot10^{-16}\cdot erg/K$	$10^7\cdot\frac{erg}{J}$
		$k^{SI}=7.05823863628079\cdot10^{-33}\cdot\frac{E_P^{SI}}{K}$	$k^{G}=$ $=7.05823863628079\cdot10^{-33}\cdot\frac{E_P^{G}}{K}$	
		$k^{PLTSI}=(k^{SI})_0\cdot K_M^{LT-SI}=$ $=9.2148669340205(24)\cdot10^{-34}\cdot\frac{m^5}{K\cdot s^4}=$ $=7.05823863628079(92)\cdot10^{-33}\cdot\frac{\ell_P^{SI}\cdot{c^{SI}}^4}{K}$	$k^{PLTG}=(k^{G})_0\cdot K_M^{LT-G}=$ $=9.2148669340205(24)\cdot$ $10^{-24}\cdot\frac{cm^5}{K\cdot s^4}=$ $=7.05823863628079(92)\cdot10^{-33}\cdot\frac{\ell_P^{G}\cdot{c^{G}}^4}{K}$	$10^{10}\cdot\frac{cm^5}{m^5}$
		$k^{PLT}=\frac{k^{PLTSI}}{\ell_P^{SI}\cdot{c^{SI}}^4}=7.05823863628079(92)\cdot10^{-33}\cdot\frac{{\ell_P}^5}{K\cdot{t_P}^4}$		
Planck temperature	T_P	$(T_P^{SI})_0=\frac{1}{(k^{SI})_0}\cdot\sqrt{\frac{\hbar^{SI}\cdot c^{SI}}{(G_N^{SI})_0}}=1.416784(23)\cdot10^{32}\cdot K$ (according to the initial data [11])		
		$T_P^{SI}=T_P^{PLTSI}=T_P^{PLT}=\frac{1}{k^{PLTSI}}\cdot\sqrt{\frac{\hbar^{PLTSI}\cdot{c^{SI}}^5}{G_N^{PLTSI}}}=\frac{1}{k^{PLTSI}}\cdot\ell_P^{SI}\cdot{c^{SI}}^4=\frac{{\ell_P}^5}{k^{PLT}\cdot{t_P}^4}=$ $=1.416784061195941(18)\cdot10^{32}\cdot K$		
		$\frac{(T_P^{SI})_0-T_P^{SI}}{u(T_P^{SI})_0}\cdot100\%=0.27\%$		

From the data shown in Table 1, it follows that all five systems of units are interconnected by an unambiguous and exact correspondence.

At the same time, the calculated values have deviations from the recommended CO DATE [11] values of no more than 7.74% of their standard uncertainty.

That is, the initial data and the results of calculations obtained in one system of units can be used in another without losing the accuracy of calculations.

For example, the geocentric gravitational constant of the Earth, according to the 2016 IAU data [15], has the value $GM_E=3.986004356(8)\cdot10^{14}\cdot m^3\cdot s^{-2}$, which is equivalent to the mass value in the PLTSI system. Using the conversion coefficient of mass K_M^{LT-SI}, we obtain the value of the Earth's mass in kg:

$$M_E = GM_E / K_M^{LT-SI} = 5.97216755(12) \cdot 10^{24} \cdot kg,$$

which is 4 orders of magnitude more accurate than the value of the Earth's mass presented in the same document, but calculated using the value of Newton's gravitational constant recommended by CODATE [11]. In this case, the deviation from the IAU value ($M_E = 5.9722(6) \cdot 10^{24} \cdot kg$) is 5.4% of its standard uncertainty.

5. Forms of electromagnetic equations

Table 2 shows the equations for the electric displacement field D and the magnetic field strength H, the macroscopic forms of Maxwell's equations and the Lorentz force equations depending on the values of ε_0, μ_0 and rationalization constants given in Table 1 taking into account the relations [12]

Таблица 2

Definitions of ε_0, μ_0, D, H, Macroscopic Maxwell Equations, and Lorentz Force Equation in SI, G, PLT, PLTSI and PLTG Systems of Units

System	ε0	μ0	The equations of the electric displacement field D and the magnetic field strength H	Macroscopic forms of Maxwell's equations	Lorentz force equations	Forms of electromagnetic equations
G	1	1	+			$D = E + 4 \cdot \pi \cdot P;\ \ H = c^2 \cdot B - 4 \cdot \pi \cdot M$
				+		$\nabla \cdot D = 4 \cdot \pi \cdot \rho;\ \ \nabla \times \mathrm{H} = \frac{4 \cdot \pi}{c} \cdot J + \frac{1}{c} \cdot \frac{\partial D}{\partial t};\ \nabla \times \mathrm{E} + \frac{1}{c} \cdot \frac{\partial B}{\partial t} = 0;\ \nabla \cdot B = 0$
					+	$\mathrm{F} = q(E + \frac{v}{c} \times B)$
PLTG	1	1	+			$D = E + 4 \cdot \pi \cdot P;\ \ \ H = c^2 \cdot B - 4 \cdot \pi \cdot M$
				+		$\nabla \cdot D = 4 \cdot \pi \cdot \rho;\ \ \nabla \times \mathrm{H} = \frac{4 \cdot \pi}{c} \cdot J + \frac{1}{c} \cdot \frac{\partial D}{\partial t};\ \ \nabla \times \mathrm{E} + \frac{1}{c} \cdot \frac{\partial B}{\partial t} = 0;\ \nabla \cdot B = 0$
					+	$\mathrm{F} = q(E + \frac{v}{c} \times B)$
PLT	1	$\frac{1}{c^2}$	+			$D = E + 4 \cdot \pi \cdot P;\ \ H = c^2 \cdot B - 4 \cdot \pi \cdot M$
				+		$\nabla \cdot D = 4 \cdot \pi \cdot \rho;\ \ \nabla \times \mathrm{H} = 4 \cdot \pi \cdot J + \frac{\partial D}{\partial t};\ \nabla \times \mathrm{E} + \frac{\partial B}{\partial t} = 0;\ \ \nabla \cdot B = 0$
					+	$\mathrm{F} = q(E + v \times B)$
PLTSI	$\frac{1}{4\pi}$	$\frac{4 \cdot \pi}{c^2}$	+			$D = \frac{1}{4\pi} \cdot E + P;\ \ H = \frac{c^2}{4 \cdot \pi} \cdot B - M$
				+		$\nabla \cdot D = \rho;\ \ \nabla \times \mathrm{H} = J + \frac{\partial D}{\partial t};\ \ \nabla \times \mathrm{E} + \frac{\partial B}{\partial t} = 0;\ \ \nabla \cdot B = 0$

System	ε0	μ0	The equations of the electric displacement field D and the magnetic field strength H	Macroscopic forms of Maxwell's equations	Lorentz force equations	Forms of electromagnetic equations
					+	$F = q(E + v \times B)$
SI	ε_0^{SI}	μ_0^{SI}	+			$D = \varepsilon_0^{SI} \cdot E + P;\ H = \frac{1}{\mu_0^{SI}} \cdot B - M$
				+		$\nabla \cdot D = \rho;\ \nabla \times H = J + \frac{\partial D}{\partial t};\quad \nabla \times E + \frac{\partial B}{\partial t} = 0;\ \nabla \cdot B = 0$
					+	$F = q(E + v \times B)$
		$\mu_0^{SI} = 4 \cdot \pi \cdot {K_{\Delta e}}^2 \cdot 10^{-7} \cdot N \cdot A^{-2}$				
	$\varepsilon_0^{SI} = 10^7 \cdot F \cdot m \cdot \left(4 \cdot \pi \cdot {c^{SI}}^2 \cdot {K_{\Delta e}}^2 \cdot s^2\right)^{-1}$					

6. Classification of basic constants

It is important to note that if for SI the defining constants are the transition frequency of the hyperfine splitting Cs-133 $\Delta\nu_{Cz}$, the speed of light in vacuum, Planck's constant, elementary charge e and Boltzmann constant (other defining constants of SI outside the subject field of this article), for G the transition frequency of the hyperfine splitting Cs-133 $\Delta\nu_{Cz}$, the speed of light in vacuum, Planck's constant, fine structure constant and Boltzmann constant, then for PLT, PLTSI and PLTG – Planck length, speed of light and fine structure constant.

According to the classification [8], the basic units and physical constants can be attributed to one of three classes: dimensionless constants (A), independent dimensional constants (C), derivatives (all remaining) dimensional constants (B). That is, there is a relation (constant of class B) = (constant or combination of constants of class A) x (constant or a combination of Class C constants).

Table 3 shows the classification of the main constants and units of measurement presented in the article of the systems of units.

Table 3

Classification of basic constants and units of measurement, in systems of units SI, G, PLT, PLTSI и PLTG

Name of physical permanent and basic units	Classes				
	SI	**PLTSI**	**PLT**	**PLTG**	**G**
Reference frequency $\Delta\nu_{Cs}$	C	C	C	C	C
Единица времени $1\ s = 9192631770/\Delta\nu_{Cs}\ \ t_P = \ell_P/c$	B	B	B	B	B
The speed of light in a vacuum $c = 299792458 \cdot \mathrm{m}/s =$ $= 29979245800 \cdot \mathrm{c\,m}/s = \ell_P/t_P$	C	C	C	C	C
A unit of spatial extent $1\ m\ = (c/299792458)\cdot \mathrm{s};\ \ 1\ cm\ = m/100;$ $\ell_P = 1.61625513959960(21)\cdot 10^{-35}\cdot m =$ $= 1.61625513959960(21)\cdot 10^{-33}\cdot cm$	B	C	C	C	B
Planck's constant $h = 6.62607015\cdot 10^{-34}\cdot m^2\cdot kg\cdot s^{-1};\ h = 2\cdot\pi\cdot{\ell_P}^2\cdot c^3$	C	B	B	B	C
Boltzmann Constant $k = 1.380649\cdot 10^{-23}\cdot J/K;$ $k = 7.05823863628079(92)\cdot 10^{-33}\cdot \ell_P\cdot c^4/K$	C	B	B	B	C
Unit of mass Kilogram (kg) $1\ kg = \left(\frac{h}{6.62607015\cdot 10^{-34}}\right)\cdot m^{-2}\cdot s$ $1gm = kg/1000$ $M_P = \frac{h}{2\cdot\pi\cdot\ell_P\cdot c};\ \ M_P = {\ell_P}^3\cdot {t_P}^{-2} = \ell_P\cdot c^2$	B	B	B	B	B
Elementary charge $e\ = 1.602176634\cdot 10^{-19}\cdot C;$ $e = \sqrt{\alpha\cdot\hbar\cdot c};\ e = \sqrt{\alpha}\cdot\ell_P\cdot c^2$	C	B	B	B	B
Units of electric current $1A = \frac{e}{1.602176634\cdot 10^{-19}\cdot s}$ $Fr/s = cm^{3/2}\cdot gm^{1/2}\cdot s^{-2}$ $I_P = \frac{e}{\sqrt{\alpha}\cdot t_P};\ \ I_P = \frac{\sqrt{\hbar\cdot c}}{t_P};\ \ I_P = {\ell_P}^3\cdot {t_P}^{-3} = c^3$	B	B	B	B	B
Gravitational constant $G_N = \frac{{\ell_P}^2\cdot c^3}{\hbar};\ \ \ G_N = 1$	B	A	A	A	B
Vacuum electric permittivity $\varepsilon_0 = \frac{1}{4\cdot\pi}\cdot\frac{e^2}{\hbar\cdot\alpha\cdot c};\ \varepsilon_0 = \frac{1}{4\cdot\pi};\ \ \varepsilon_0 = 1$	B	A	A	A	A
Coulomb's Constant $k_C = \frac{1}{4\cdot\pi\cdot\varepsilon_0};\ \ k_C = 1$	B	A	A	A	A
Fine structure constant, dimensionless coupling constants of the calibration interaction	A	A	A	A	A

Name of physical permanent and basic units	Classes				
	SI	PLTSI	PLT	PLTG	G
$\alpha = \left(\frac{e}{q_P}\right)^2 = \frac{e^2}{4\cdot\pi\cdot\varepsilon_0\cdot\hbar\cdot c};\ \alpha = \frac{g^2}{4\cdot\pi\cdot\hbar\cdot c}$					
The rest mass constant of an elementary particle (the ratio of the mass of an elementary particle to the Planck mass or the ratio of the Planck length to its reduced Compton wavelength) $K_{ep}^{rm} = \frac{M_{ep}^{rm}}{M_P} = \frac{\ell_P}{\lambda_{C,ep}}$	A	A	A	A	A

7. The role of the speed of light in determining the basic constants

In the article [7], the author proposed to start the discussion of fundamental physical constants with a somewhat unexpected question: "what would change in the world around us if the speed of light were different from what it actually is, say, ten orders of magnitude higher, i.e. $3\cdot10^{20}\cdot$cm/s?". And assuming that the values of Planck's Constant, the elementary electric charge, the mass of an electron and a proton remain unchanged, and analyzing the equations of connection of fundamental interactions, he comes to the conclusion that both with an increase in the speed of light and with its decrease, the world would change radically and many physical processes, and even more so life in it would be impossible.

But let's get into this "game" from the perspective of the PLT, PLTSI and PLTG systems. To begin with, Planck's constant, with an increase in the speed of light by ten orders of magnitude, will increase by 30 orders of magnitude (we mark the notation of the changed values in SI with a dot):

$$\dot{h}^{SI} = h^{SI}\cdot\frac{{\ell_P}^2\cdot\dot{c}^3}{{\ell_P}^2\cdot c^3} = h^{SI}\cdot10^{30}$$

The Planck mass and the Planck charge and, accordingly, the mass of elementary particles and the elementary charge, the effective charge of the weak interaction for the proton and the effective charges of other interactions – by 20 orders of magnitude

$$\dot{M}_P^{SI} = M_P^{SI}\cdot\frac{\ell_P\cdot\dot{c}^2}{\ell_P\cdot c^2} = M_P^{SI}\cdot10^{20}$$

$$\dot{q}_P^{SI} = q_P^{SI}\cdot\frac{\ell_P\cdot\dot{c}^2}{\ell_P\cdot c^2} = q_P^{SI}\cdot10^{20}$$

$$\dot{g}_W^{SI} = g_W^{SI} \cdot \frac{\ell_P \cdot \dot{c}^2}{\ell_P \cdot c^2} = g_W^{SI} \cdot 10^{20}$$

$$\dot{g}_s^{SI} = g_s^{SI} \cdot \frac{\ell_P \cdot \dot{c}^2}{\ell_P \cdot c^2} = g_s^{SI} \cdot 10^{20}$$

Fermi constant by 40 orders of magnitude

$$\dot{G}_F^{SI} = G_F^{SI} \cdot \frac{{\ell_P}^4 \cdot \dot{c}^4}{{\ell_P}^4 \cdot c^4} = G_F^{SI} \cdot 10^{40}$$

but at the same time, due to the above scaling, the dimensionless interaction constants $(\alpha, \alpha_s, \alpha_G)$, as the square of the ratio of effective charges to the Planck charge, as well as the weak interaction constant (in particular, for the proton) will not change, as invariant to the speed of light

$$\alpha_W = \left(\frac{G_F^{PLT}}{\hbar^{PLT} \cdot c^{PLT}}\right)^2 \cdot \left(\frac{\hbar^{PLT}}{\mathrm{K}_{Pr}^{rm} \cdot \ell_P \cdot {c^{PLT}}^3}\right)^{-4} =$$

$$= \left(\frac{1.73857200 \cdot 10^{33} \cdot \frac{{\ell_P}^8}{{t_P}^4}}{\frac{{\ell_P}^6}{{t_P}^4}}\right)^2 \cdot \left(\frac{{\ell_P}^5 \cdot {t_P}^3}{{t_P}^3 \cdot 7.68514818 \cdot 10^{-20} \cdot {\ell_P}^4}\right)^{-4} =$$

$$= 1.02682675 \cdot 10^{-5}$$

and the Planck temperature

$$T_P^{PLT} = \frac{1}{k^{PLT}} \cdot \sqrt{\frac{\hbar^{PLT} \cdot {c^{PLT}}^5}{G_N^{PLT}}} = \frac{{\ell_P}^5}{k^{PLT} \cdot {t_P}^4} =$$

$$= \frac{{\ell_P}^5}{7.05823863628079(92) \cdot 10^{-33} \cdot \frac{{\ell_P}^5 \cdot {t_P}^4}{K \cdot {t_P}^4}} =$$

$$= 1.416784061195941(18) \cdot 10^{32} \cdot K$$

Constants having the dimension of spatial extent will not change, as they are invariant to the speed of light:

Rydberg's constant:

$$R_\infty = \frac{\alpha^2 \cdot \mathrm{K}_e^{rm}}{4 \cdot \pi \cdot \ell_P}$$

Thomson cross section of photon scattering by free electrons:

$$\sigma_T = \frac{8 \cdot \pi \cdot \alpha \cdot \ell_P}{3 \cdot K_e^{rm}}$$

Rayleigh nonresonant scattering of light by atoms:

$$\sigma_R = \frac{\alpha^2 \cdot {\ell_P}^2}{(K_e^{rm})^2}$$

Boron radius:

$$a_0 = \frac{\ell_P}{K_e^{rm} \cdot \alpha}$$

This list can be continued, the main thing is that the charge and mass ratios of elementary particles will remain and the coupling equations will continue to work. The frequencies and energies of the interactions will change, but the linear dimensions of the spectral bands will remain.

To complete the picture, let's look at this world through the eyes of a metrologist. Since the Rydberg constant does not depend on the speed of light, the wavelength for the hyperfine splitting transition frequency Cs 133 will not change, but the frequency $\Delta\dot{\nu}_{Cz} = \dot{c}/\lambda_{\nu_{Cz}}$ will be 10 orders of magnitude higher. That is, our metrologist will determine 1 second according to the well-known formula [5]:

$$1\,\dot{s} = \frac{9192631770}{\Delta\dot{\nu}_{Cz}} = \frac{s}{10^{10}}$$

He will determine the length of one meter $\dot{m} = (\dot{c}/299792458) \cdot \dot{s}$, i.e. $\dot{m} = m$.

He will determine the mass of one kg according to the well-known formula

$$\dot{kg} = \left(\frac{\dot{h}}{6.62607015 \cdot 10^{-34}}\right) \cdot \dot{m}^{-2} \cdot \dot{s}$$

accordingly $(1 \cdot \dot{kg} = 10^{20} \cdot kg)$.

a charge equal to one coulomb:

$$\dot{C} = \frac{\dot{e}}{1.602176634 \cdot 10^{-19}} = \frac{\sqrt{\alpha} \cdot \dot{q}_P^{SI}}{1.602176634 \cdot 10^{-19}} = C \cdot 10^{20}$$

Thus, all defining constants and units of measurement will change except for units of length.

But from the point of view of metrology, all these values will remain unchanged, as well as the equations of connection of the laws of physics, i.e. even textbooks will not have to be rewritten.

In the concept of variable speed of light (VSL), it is believed that c, in some cases, may not be a constant. In particular, the author [13] believes that after the Big Bang, before the phase transition from a gas of quarks to nucleons, light propagated more than 32 orders of magnitude faster than the current value, which allows solving the horizon problem and a number of other problems. But the author attributes the success of the further development of the theory to the choice of a system of units in which the change of other constants would be associated with the changing speed of light. The PLT, PLTSI, and PLTG systems of units are possible candidates for this role.

8. The role of the Planck charge in determining the interaction constants

Let's go back to our world and the speed of light.

All dimensionless interaction constants are determined by the ratio of the square of the effective charge of the particles involved in the interaction to the product of $\hbar \cdot c$. The following are the same relationships in the PLT system:

Gravitational interaction:

$$\alpha_G = G_N \cdot \frac{{M_{Pr}}^2}{\hbar \cdot c} = \frac{\left(\mathrm{K}_{Pr}^{rm} \cdot {\ell_P}^3 \cdot {t_P}^{-2}\right)^2}{\left({\ell_P}^5 \cdot {t_P}^{-3}\right) \cdot (\ell_P \cdot t_P)} = \frac{(\mathrm{K}_{Pr}^{rm} \cdot q_P^{PLT})^2}{{q_P^{PLT}}^2} = {\mathrm{K}_{Pr}^{rm}}^2 = 5.906 \cdot 10^{-39}$$

Electromagnetic interaction::

$$\alpha = \frac{e^2}{4 \cdot \pi \cdot \varepsilon_0 \cdot \hbar \cdot c} = \frac{\left(\sqrt{\alpha} \cdot {\ell_P}^3 \cdot {t_P}^{-2}\right)^2}{\left({\ell_P}^5 \cdot {t_P}^{-3}\right) \cdot (\ell_P \cdot t_P)} = \frac{\left(\sqrt{\alpha} \cdot q_P^{PLT}\right)^2}{{q_P^{PLT}}^2} = 7.297 \cdot 10^{-3}$$

Strong interaction at the hadron level::

$$\alpha_s = \frac{{g_{N\pi}}^2}{4 \cdot \pi \cdot \hbar \cdot c} = \frac{{g_{N\pi}^{PLT}}^2}{4 \cdot \pi \cdot \left({\ell_P}^5 \cdot {t_P}^{-3}\right) \cdot (\ell_P \cdot t_P)} = \frac{{g_{N\pi}^{PLT}}^2}{4 \cdot \pi \cdot {q_P^{PLT}}^2} \approx 14.6$$

For quarks in quantum chromodynamics:

$$\alpha_{sq} = \frac{{g_{qg}}^2}{4 \cdot \pi \cdot \hbar \cdot c} = \frac{{g_{qg}^{PLT}}^2}{4 \cdot \pi \cdot {\ell_P}^6 \cdot {t_P}^{-4}} = \frac{{g_{qg}^{PLT}}^2}{4 \cdot \pi \cdot {q_P^{PLT}}^2} < 1$$

And even for the weak interaction, in particular for the proton:

$$\alpha_W = \frac{4 \cdot \pi \cdot G_F \cdot {M_{Pr}}^2 \cdot c^2}{\hbar^2} = \frac{{g_F}^2}{4 \cdot \pi \cdot \hbar \cdot c} = \frac{\left(0.0113593510(29) \cdot \frac{{\ell_P}^3}{{t_P}^2}\right)^2}{4 \cdot \pi \cdot {\ell_P}^6 \cdot {t_P}^{-4}} \approx$$

$$\approx 1.027 \cdot 10^{-5}$$

Thus, it is acceptable to assume that the magnitude of the effective charge with respect to the Planck charge determines the interaction constant.

The magnitude of the Planck charge of any nature has the value $\ell_P \cdot c^{PLT^2}$, i.e. for effective charges, a model representing a space-time process with a limiting flow rate equal to the speed of light in a vacuum is acceptable.

In order for such processes having the same dimension to differ qualitatively, the space associated with them must differ in at least one orthogonal dimension. That is, PLT indirectly indicates the presence of hidden dimensions in the metric of our space. Then it is possible to form a multidimensional model of the process equivalent to a truly elementary particle, from which, for dimensional reasons, it is possible to isolate a fragment equivalent to an effective charge of dimension L^3T^{-2} of the corresponding interaction. The energy of a particle having a rest mass is related to the frequency of the de Broglie wave by the ratio $E = \hbar \cdot \omega$ [9], where ω is interpreted in the same way as the rotation frequency of the probability amplitude. But the frequency, ω, can also be the frequency of a multidimensional process equivalent to a truly elementary particle. Probably, such an approach can be applied to particles without rest mass, such as a photon.

The energy of a particle having a rest mass is related to the frequency of the de Broglie wave by the ratio $E = \hbar \cdot \omega$ [9], where ω is interpreted in the same way as the rotation frequency of the probability amplitude.But the frequency, ω, can also be the frequency of a multidimensional process equivalent to a truly elementary particle.This approach can probably be applied to both rest-mass and non-rest-mass particles such as the photon. The frequency, ω, can also be the frequency of a multidimensional process equivalent to a truly elementary particle.

$$E = m \cdot c^2 = K_{ep}^{rm} \cdot {\ell_P}^3 \cdot {t_P}^{-2} \cdot {\ell_P}^2 \cdot {t_P}^{-2} = \left(K_{ep}^{rm} \cdot \omega_P\right) \cdot {\ell_P}^2 \cdot c^3 = \omega \cdot {\ell_P}^2 \cdot c^3$$

$$E = \hbar \cdot \omega = \omega \cdot {\ell_P}^2 \cdot c^3,$$

where $\omega_P = {t_P}^{-1}$ is the Planck angular frequency.

The dependence of the constants of fundamental interactions on the interaction energy and the convergence of their values when approaching Planck energies is known [9]. But taking into account the above, it is acceptable to assume that the values of effective charges are related to the topology of the corresponding space, and their changes are related to the relativistic deformation of the particle localization region, and, accordingly, a change in the parameters of an equivalent multidimensional process. That is, it is not the interaction constants that may change, but the values of the effective charges.

It is possible that the PLT system is also applicable to solving one of the ten problems of the Standard Model – the search for the structure of fundamental particles.

Conclusions

1. The Planck LT system of units, built on the basis of the kinematic system of units by R.O. di Bartini, is a full-fledged system of units and in any of the three presented variants (PLT, PLTSI, PLTG) can be used to produce scientific and engineering calculations using the forms of basic electromagnetic equations given in the article.

2. The presented conversion coefficients between PLT and SI, PLT and the Gaussian system, as well as the refined ($K_{\Delta e}$) conversion coefficients between the electromagnetic quantities SI and the Gaussian system allow the initial data and calculation results obtained in one system to be used in another without loss of calculation accuracy.

3. Planck's constant in PLT, PLT, PLT systems is not a fundamental constant, but a derivative constant.

4. The conversion coefficient of the mass value between the PLT, PLTSI, PLTG and SI systems and the Gaussian system is equivalent to Newton's gravitational constant, that is, it is permissible to use this constant in a more accurate value obtained non-experimentally:

$$G_N = 6.6743009512342(17) \cdot 10^{-11} \cdot m^3 \cdot s^{-2} \cdot kg^{-1}$$

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