The Secrets of the universe

In physics, there are some natural laws, but many scientific theories. There are also rather interpretations, opinions and hypotheses on which these theories are based on.

If we leave aside the theories and the various opinions and interpretations as "man's work", then only the laws of nature will remain. The empirically confirmed and universally valid laws of nature do explain the relationships and interrelationships of physical phenomena. However, there is a problem: they contain partially natural constants that only can be determined by measurement. While describing the processes of nature, one will encounter physical constants, whose values can be measured, but so far no one knows what they are to be attributed to.

The secrets of the universe are thus hidden in the constants of nature. Consequently, many well-known physicists had the desire to derive the number of fundamental constants from a single constant.

There are over a hundred fundamental constants, but only about two dozen of them are elementary, and the rest can be derived from them. After the discovery of the global formula I have therefore derived the basic constants of nature, because it is possible to explain the entire universe with them. The derived constants of nature have been selected after careful consideration, and as we shall see later, even these fundamental constants of nature are based on a single number, namely the elementary constant.

Einstein also was dissatisfied with the constants of nature, and he has described it as follows: *"... I cannot compellingly think of any reasonable and consistent theory that explicitly contains one number which could also have been chosen as another number by the whim of the Creator, where the world qualitatively would have been represented in a different way in its laws. "*

For Einstein, the most elementary constants of nature such as the speed of light, gravitational constant and the Planck quantum of action were not really fundamental, because their value still depends on "conventional" units. Only if it could be succeed to create one quantity from several constants that is a pure numerical value without unit of measurement, then a universal constant would exist according to Einstein's view. However the numerical value of this universal, absolute constant should be determined by the logical basis of the physical theory.

The number $\sqrt{10}$ in the global formula is the universal elementary constant, and we will gradually learn their special characteristics in the following chapters.

The below listed nature constants and some important physical quantities have been derived with the global formula. As we are going to see, all fundamental constants in physics can be attributed to a single number $\sqrt{10}$ as the elementary constant.

e $\qquad$ G

$$c$$

$$\hbar \qquad m_e \qquad m_{\text{Pr}\,ot}$$

$$E = \sqrt{10} \qquad\qquad\qquad \alpha$$

$$l_P \qquad Q_P$$

$$kr_e$$

$$t_P \qquad m_P \qquad g$$

$c =$ speed of light

$\hbar =$ reduced Planck quantum

$l_P =$ Planck length

$t_P =$ Planck time

$e =$ elementary charge

$m_e =$ electron mass

$Q_P =$ quantized charge

$m_P =$ quantized mass

$G =$ gravitationnel constant

$m_{\text{Pr}\,ot} =$ proton mass

$\alpha =$ fine structure constant

$kr_e =$ classical electron radius

$g =$ acceleration of gravity