5<sup>th</sup> International Conference on

## **Theoretical and Applied Physics**

July 02-03, 2018 | Vienna, Austria

## Physical-mathematical method of more precise rendering of gravitation constant and Planck's parameters of length, time and mass

Valentyn A Nastasenko Kherson State Maritime Academy, Ukraine

**P** resently gravitation constant *G* is certain to 6 signs from which 5 – exact, that on 4-3 orders yields exactnesses of other fundamental physical constants are speed c light in a vacuum and constants of Plank's *h*, recommended by CODATA (2014). However possibilities of increase of exactness of determination of *G* experimental a way in the conditions of Earth attained the technical limit, that requires the search of on principle new approaches. On the basis of the offered original method the system of calculation dependences, effluent from fundamental physical constants with, is *c*, *G*, *h*. This physical-mathematical regularities is strict and allow determining the exact value of frequency of oscillation wave gravitational field  $v_G = 7.4 \cdot 10^{42} \, \text{s}^{-1}$  (constant Nastasenko). This value  $v_G$  of allows defining value gravity constant *G* to 10 signs, that on 4 orders more precisely than the all of values of *G* known presently. The necessity of experimental determination of *G* is thus eliminated, only enough determinations c and h, and growth of their exactness automatically will result in growth of exactness of determination of size of *G*. On the basis of  $v_G$ , the wave parameters of the gravitational field are found, which are real quantities of the material world, and can replaced abstract Planck's values of length  $l_p$ , time  $t_p$  and mass  $m_p$ . Herewith, their accuracy is increased which allows to determine the value of the gravitational constant *G* to 10 characters, which is 4 orders of magnitude more accurate than all its values recommended by CODATA (2014).

## Biography

Valentyn A Nastasenko is the professor at Kherson State Maritime Academy, Ukraine.

Nastasenko2004@ukr.net

Notes: