

# The explanation of the gravitational constant

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### 1. Description of the variables

F = force in [ N ] ( Newtons)

I = Stromsrärke in [A] ( amps)

Q = charge in [C ] ( Coulomb )

t = time [s ] (seconds )

p = Pulse [kg \* m / s]

m = mass in [kg ] (kg)

v = velocity [m / s]

r = radius in m ( meters)

$\epsilon_0$  = the permittivity of free space

$\pi$  = the circle constant ,  $\pi = 3.14159$

### 2. Comparison between new and old amps Definiton

Old ampere definition :

The unit 1 ampere is that of a time-invariant electric current , parallel , spaced by two vacuum 1 meter apart, straight infinitely long conductor of negligible cross section flowing between these conductors each a meter of length electrodynamic force equal to  $2 \cdot 10^{-7}$  Newton would cause .

New ampere definition :

$$1\text{N} = 1 * \text{kg} * \text{m} * \text{s}^{-2} \text{ or } 1 \text{ kg m} / \text{s}^2$$

$$1\text{A} = 2 \times 10^{-7} \text{ N} * \text{ or } 2 * 10^{-7} \text{ kg m} / \text{s}^2$$

That's all. Nothing more.

### 3. Establishment of a new fundamental constant

The number  $2 \cdot 10^{-7}$  is a Dimensionslose constant of nature .

All other fundamental constants have this constant of nature ( the so-called . TORIC- constant of nature ) included .

### 4. Impact on Gravitationstherie

It is my premise , according to the new definition amp that the current is equal to the TORIC -Naturkonstante \* force.

$$I = 2 \cdot 10^{-7} \cdot F \text{ or } 1A = 2 \times 10^{-7} N \cdot$$

since A is current charge per time or force is equal pulse per period , the following applies:

$$I = Q / t \text{ and } F = p / t$$

So we have the result : Q is the charge TORIC - Nature constant \* pulse and pulse again mass times velocity .

$$Q = 2 \cdot 10^{-7} p \text{ respectively . } Q = 2 \cdot 10^{-7} m \cdot v \text{ because } p = m \cdot v .$$

$$\text{Or } C = 2 \cdot 10^{-7} \text{ kg} \cdot \text{m} / \text{s}$$

Unification of gravitation and electromagnetism by the Association of Coulomb's law and law of gravity.

$$F = k_0 \cdot Q_1 \cdot Q_2 / r^2 \text{ where } k_0 = 1 / 4 \cdot \pi \cdot \epsilon_0 \text{ or } 8.987552 \cdot N \cdot 10^9 \text{ m}^2 / \text{C}^2$$

is calculated as follows :

$$F = 8.987552 \cdot N \cdot 10^9 \text{ m}^2 / \text{C}^2 \cdot Q_1 \cdot Q_2 / r^2$$

the law of gravitation , we have:

$$F = G \cdot m_1 \cdot m_2 / r^2 \text{ where } G = 6.673 \cdot 10^{-11} \text{ N} \cdot \text{m}^2 / \text{kg}^2$$

now when I use my premise in the formula of Coulomb I get the law of gravity :

$$F = 8.987552 \cdot N \cdot 10^9 \text{ m}^2 / \text{C}^2 \cdot Q_1 \cdot Q_2 / r^2$$

$$\text{It is } Q_1 = 2 \cdot 10^{-7} m_1 \cdot v \text{ and } Q_2 = 2 \cdot 10^{-7} m_2 \cdot v$$

$$F = 8.987552 \cdot 10^9 \cdot N \cdot \text{m}^2 / \text{C}^2 \cdot 2 \times 10^{-7} \cdot m_1 \cdot v \cdot 2 \times 10^{-7} \cdot m_2 \cdot v / r^2$$

$$\text{we are still running for F on the left } F = I / 2 \times 10^{-7}$$

Then we have:

$$I / 2 \times 10^{-7} = 8.987552 \cdot 10^9 \cdot N \cdot \text{m}^2 / \text{C}^2 \cdot 2 \times 10^{-7} m_1 \cdot v \cdot 2 \times 10^{-7} m_2 \cdot v / r^2$$

if we have this whole long formula with  $2 \times 10^{-7}$  times take (on the left and on the right ), we obtain :

$$I = 8.987552 \cdot 10^9 \cdot N \cdot \text{m}^2 / \text{C}^2 \cdot 2 \times 10^{-7} m_1 \cdot v \cdot 2 \times 10^{-7} m_2 \cdot v / r^2 \cdot 2 \times 10^{-7}$$

if we sort we get :

$$I = 8.987552 \cdot 10^9 \cdot 2 \cdot 10^{-7} \cdot 2 \cdot 10^{-7} \cdot 2 \times 10^{-7} \cdot N \cdot \text{m}^2 / \text{C}^2 \cdot v \cdot v \text{ and } m_1 \cdot m_2 / r^2$$

$$I = 7.12 \times 10^{-11} \cdot N \cdot \text{m}^2 / \text{C}^2 \cdot v^2 \cdot m_1 \cdot m_2 / r^2$$

$$\text{and } v^2 = C^2 / \text{kg}^2 \cdot N \cdot \text{m}^2 / \text{C}^2 \cdot C^2 / \text{kg}^2 = N \cdot \text{m}^2 / \text{kg}^2$$

□ in units ;

$$A = 7.12 \times 10^{-11} \cdot N \cdot \text{m}^2 / \text{C}^2 \cdot C^2 / \text{kg}^2 = N \cdot \text{m}^2 / \text{kg}^2 \cdot m_1 \cdot m_2 / r^2$$

$$A = G \cdot m_1 \cdot m_2 / r^2$$

we also get :

$$I = 7.12 \times 10^{-11} \cdot N \cdot \text{m}^2 / \text{C}^2 \cdot C^2 / \text{kg}^2 = N \cdot \text{m}^2 / \text{kg}^2 \cdot m_1 \cdot m_2 / r^2$$

$$I = G \cdot m_1 \cdot m_2 / r^2$$

If this formula is correct, is therefore no gravitational force gravitational But only a current. If Newton wrong!

Albert Einstein There are also the gravitational constant G in its formula :

$$G_{??} = k * T_{??}$$

where  $G_{??}$  the so-called Einstein tensor , which to some extent represents the curvature of space- time und  $T_{??}$  is called the energy-momentum tensor of the curved space-time.

In tensors are not interressieren us first because we want was not compute the space-time, but the constant k by which both the gravitational constant and the speed of light contains .

$$\text{Si e is: } k = 8 * G / c^4 \text{ or } 8 * 6.7 * 10^{-11} / 2997924584$$

$$\text{The result is: } 2.084643763 * 10^{-43}$$

I use my G - formula I get:

$$8.987552 * N * 10^9 \text{ m}^2 / \text{C}^2 * 2 * 2 \cdot 10^{-7} \cdot 10^{-7} * 2 \times 10^{-7}$$

$$= 1 / 4 * \pi ( 2 \times 10^{-7} )^3$$

Since, therefore, is :  $k = 8 * 1 / 4 * \pi * ( 2 \times 10^{-7} )^3 / c^4$  cut out Pi and get  $c^4$  to the other side .

$$k * c^4 = 8 * 1/4 * \pi * (2 \times 10^{-7})^3 \text{ or } k * c^4 = 1/\pi * 2 * ( 2 \times 10^{-7} )^3 \text{ times } \pi \text{ follows :}$$

$$k * c^2 * c^2 * \pi = 2 * (2 \times 10^{-7} )^3$$

$$1/\pi = c^2$$

$$k = \pi * 2 * (2 \times 10^{-7})^3 / c^2 \text{ and } 2 * 2 * 2 * 10^{-7} \cdot (2 \cdot 10^{-7})^3 / c^2$$

and the results about :  $2.237115675 * 10^{-43}$

So almost the same number .

With the formula  $Q / m = 2 * 10^{-7} v$

Have yourself available other natural constant explain , ideal for  $v = c$  and  $c = 299792458 \text{ m} / \text{s}$ .

$Q/m = (2 \cdot 10^{-7} )^n * v$  , ideal für  $n = 0, 1, 2, 3, 4, \dots$

$$1) Q / m = (2 \cdot 10^{-7} )^0 * 299.792.458 \text{ m} / \text{s} = 299.792.458 \text{ m} / \text{s}$$

$$2) Q / m = (2 \cdot 10^{-7} )^1 * 299.792.458 \text{ m} / \text{s} = 59,9584916$$

$$3) Q / m = (2 \cdot 10^{-7} )^2 * 299.792.458 \text{ m} / \text{s} = 0,00001199169$$

$$4) Q / m = (2 \cdot 10^{-7} )^3 * 299.792.458 \text{ m} / \text{s} = 2,398339664 * 10^{-12}$$

$$5) Q / m = (2 \cdot 10^{-7} )^4 * 299.792.458 \text{ m} / \text{s} = 4,796679328 * 10^{-19}$$

$$6) F / m = (2 \cdot 10^{-7} )^5 * 299.792.458 \text{ m} / \text{s} = 9,593.358.656 * 10^{-26}$$

$$7) F / m = (2 \cdot 10^{-7} )^6 * 299.792.458 \text{ m} / \text{s} = 1,918671731 * 10^{-32}$$

2 ) Line is very reminiscent of the Verhältnis  $360/2\pi$  .(  $360 / 2\pi = 57.29577951$  )

3) This number seems to be unknown .

4) This figure provides the approximate value of the Compton wavelength of the electron.  $2.4263102389 * 10^{-12}$

5) The 5. line lies in the proper sizes of the elementary charge or the Hartree energy.  $( 4.35974434 ( 19) \cdot 10^{-18} \text{J}$  or  $1.602176565 ( 35 ) \cdot 10^{-19} \text{C}$ )

6) The proton or neutron mass is located in the vicinity of this order of magnitude.

7) Pretty much deviation from the plank 's constant or reduced- plank 's constant .

Not to mention the magnetic constant  $\mu_0 = 2\pi * 2 \times 10^{-7}$