



## Systems theory and cybernetics in chemistry and physics Lutvo Kurić

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### ABSTRACT

The modern science mainly treats the biochemical basis of sequencing in macromolecules and processes in chemistry and physics. One can ask whether the language of chemistry and physics is the adequate scientific language to explain the phenomenon in these sciences. Is there maybe some other language, out of chemistry, that determines how the chemical processes will function and what they? The research results provide some answers to these questions. They reveal to us that the process of sequencing in macromolecules is conditioned and determined not only through chemical, but also through cybernetic and information principles.



# Council for Innovative Research

Peer Review Research Publishing System

Journal of Advances in Physics

Vol 2, No.1

[editor@cirworld.com](mailto:editor@cirworld.com)

[www.cirworld.com](http://www.cirworld.com), [member.cirworld.com](http://member.cirworld.com)



## INTRODUCTION

We translated the physical and chemical parameters from the Planck's law into the digital language of programmatic, cybernetic and information principles. This we did by using the adequate mathematical algorithms. By using chemical-information procedures, we calculated the numerical value for the information content of Planck's law. What we got this way is the digital picture of this law? These digital pictures reveal to us a whole new dimension of Planck's law. They reveal to us that the chemical process of this law is strictly conditioned and determined by programmatic, cybernetic and information principles.

## RESULTS OF RESEARCH

Special relativity includes time, space, mass and energy of the body. Quantitative relationship between mass and energy is found Einstein 1905th year. If the mass (m) the term in gramovima and energy (E), then the equation for connections look like this:

$$E = mc^2$$

This means that any change in energy corresponds to the weight changes, and vice versa. Therefore, the weight of the body in motion the mass of the body at rest, hot - more than a cold, etc. However, due to the huge number of size multiplier  $c^2$ , similar changes in the mass of ordinary  $\check{c}$  term processes are quite insignificant and therefore can not notice.

Otherwise the prospects for nuclear transformation. Creating helium nucleus of the particle is related to a noticeable reduction in weight (the weight of D effect). This process occurs with tremendous energy effects. Since the atomic mass unit corresponds to energies of 931 MeV, the full equation of creating four grams helium nucleus takes the form:

$$2p+2n=a+931 \times 0,0302 = a + 28 \text{ mev}$$

If the spectrum of energy to create a core of elementary particles (so-called effect of packaging) division with its mass, then the result of such a division is called „nuclear energy ties“ and the relative stability of the corresponding core feature.

So, the key to these nuclear transformation is the number 931.

One can say that this number is the key to the materialization of time in the process of nuclear transformation. A similar case we have with all other processes in chemistry, physics, genetics, medicine and all other sciences. All processes and the physical size of the Cosmos are created using only one key. And it is at 931 This code establishes a different correlation with this physical size. There are different degrees of this correlation. In primary physical size correlation is higher, and the secondary smaller. There are also primary, and secondary codes. Primary codes were created as a result of coding with codes 19 and 7, while secondary codes resulting coding with other numerical sizes. Also, among all these codes are different correlations.

One can say that the 931 sets that will work every phenomenon in nature. Specifies that will work the entire universe. Number 931 is the seal of all seals. Without this stamp can not be detected no secret. This is the key which are, in our opinion, locked all the knowledge of the Universe. The results of our study show that the cybernetic-information parameters in nature, including chemistry and theoretical physics, exhibit far more pronounced than the classic. This is proven by the knowledge that, regardless of whether there are among the parameters or not there is a correlation in the classical sense, their effect in the processes of nature can be traced korištenjem adequate methodology. Here are some examples:

## ALGORITHM

$$\{[SA(R1,2,3,n) \times B] - [SB(R1,2,3,n) \times A] + (AB)\} = ABA;$$

SA, SB = Groups of AB numbers from X to Y

R1,2,3,n = Numbers from X to Y;

Solution:

$$A = 7; B = 19;$$

$$(A \times B \times A) = (7 \times 19 \times 7) = 931;$$

$$9,3,1 \rightarrow 323130$$

931 = Matrix code in nature

Example 1.

Chemical element Br; Atomic number 35;

$$R = 35;$$



$$\{[S7(35) \times 19] - [S19(35) \times 7] + (7 \times 19)\} = (7 \times 19 \times 7);$$

$$S7(35) = (29+30+31+32+33+34+35) = 224;$$

$$S19(35) = (17+18+19+20+21+22+23+24+25+26+27+28+29+30+31+32+33+34+35) = 494;$$

$$\{[(224 \times 19) - (494 \times 7)] + (7 \times 19)\} = (7 \times 19 \times 7) = 931;$$

931 = Matrix code in nature

Example 2.

Chemical element Ca; Atomic number 20.

	Ca	
	↓	
	20	
	↓	
$\{[S7(20) \times 19] - [S19(20) \times 7] + (7 \times 19)\}$		
	↓	
931		

931 = Matrix code in nature

Example 3.

Chemical element Sr; Atomic number 38.

	Sr	
	↓	
	38	
	↓	
$\{[S7(38) \times 19] - [S19(38) \times 7] + (7 \times 19)\}$		
	↓	
931		

931 = Matrix code in nature

Example 4.

Chemical element I; Atomic number 53.

	I	
	↓	
	53	
	↓	
$\{[S7(53) \times 19] - [S19(53) \times 7] + (7 \times 19)\}$		
	↓	
931		

931 = Matrix code in nature

etc.

Code 931 interconnects all the particles and all the phenomena in nature. This code is a constant in the formula functioning of chemistry, physics and other natural sciences. When you decode these processes we will find that it is this code enables the functioning of all the phenomena in nature. Some of these secrets will be explained on the example of Planck's law.



## Planck's law

Planck's law describes the electromagnetic radiation emitted by a black body in thermal equilibrium at a definite temperature. The law is named after Max Planck, who originally proposed it in 1900. It is a pioneer result of modern physics and quantum theory.

Percentile	0.01%	0.1%	1%	10%	20%	25.0%	30%	40%	41.8%	50%	60%	64.6%	70%	80%	90%	99%	99.9%	99.99%
Sun $\lambda$ (nm)	157	192	251	380	463	502	540	620	635	711	821	882	967	1188	1623	3961	8933	19620
288 K planet $\lambda$ ( $\mu\text{m}$ )	3.16	3.85	5.03	7.62	9.29	10.1	10.8	12.4	12.7	14.3	16.5	17.7	19.4	23.8	32.6	79.5	179	394

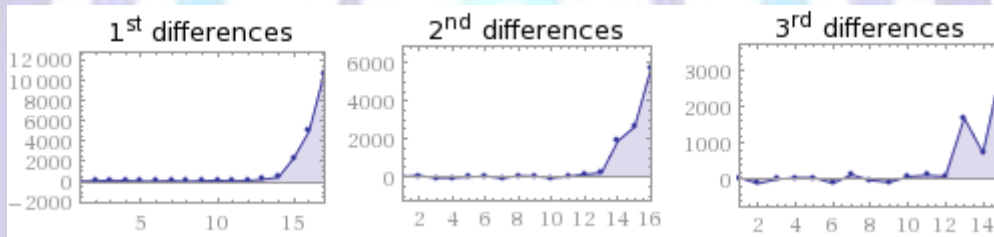
That is, only 1% of the Sun's radiation is at wavelengths shorter than 251 nm, and only 1% at longer than 3961 nm. Expressed in micrometers this puts 98% of the Sun's radiation in the range from 0.251 to 3.961  $\mu\text{m}$ . The corresponding 98% of energy radiated from a 288 K planet is from 5.03 to 79.5  $\mu\text{m}$ , well above the range of solar radiation (or below if expressed in terms of frequencies  $\nu = c/\lambda$  instead of wavelengths  $\lambda$ ).

### Decoding Planck's law

Input:

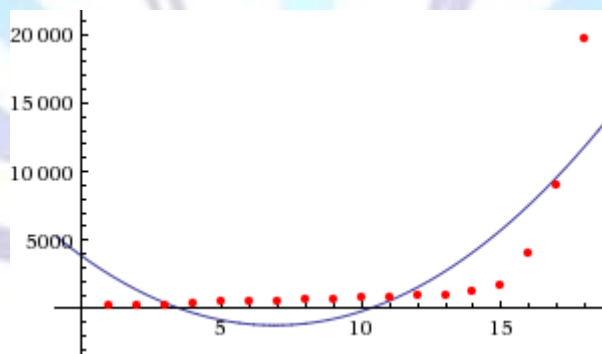
{157, 192, 251, 380, 463, 502, 540, 620, 635, 711, 821, 882, 967, 1188, 1623, 3961, 8933, 19620}

Differences:

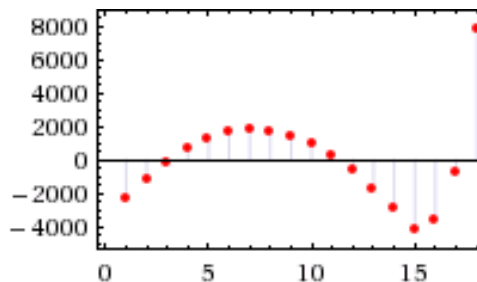


quadratic fit {157, 192, 251, 380, 463, 502, 540, 620, 635, 711, 821, 882, 967, 1188, 1623, 3961, 8933, 19620}

Plot of the least-squares fit:



Plot of the residuals:



linear fit {157, 192, 251, 380, 463, 502, 540, 620, 635, 711, 821, 882, 967, 1188, 1623, 3961, 8933, 19620}

Input interpretation



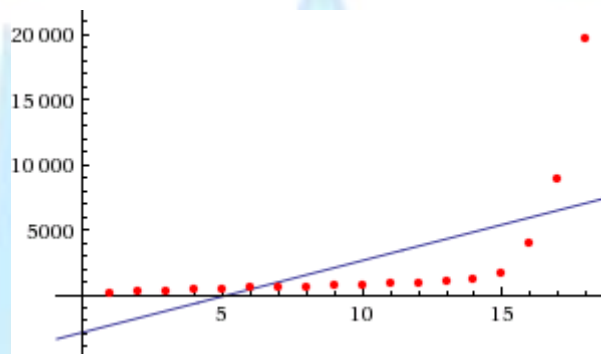
fit	data	{157, 192, 251, 380, 463, 502, 540, 620, 635, 711, 821, 882, 967, 1188, 1623, 3961, 8933, 19620}
	model	linear function

Least-squares best fit:  
 $553.207x - 2897.36$

Fit diagnostics:

AIC	BIC	$R^2$	adjusted $R^2$
352.447	355.118	0.381081	0.342398

Plot of the least-squares fit:

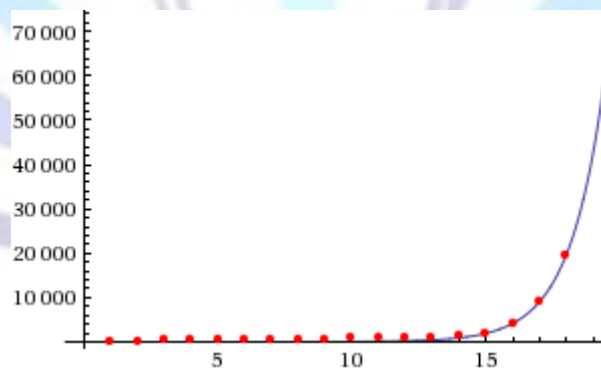


Plot of the residuals:

exponential fit {157, 192, 251, 380, 463, 502, 540, 620, 635, 711, 821, 882, 967, 1188, 1623, 3961, 8933, 19620}

Least-squares best fit:  
 $0.0169722 e^{0.775402x}$

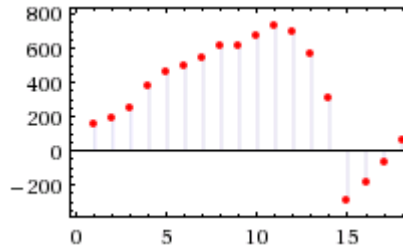
Plot of the least-squares fit:



Fit diagnostics:

AIC	BIC	$R^2$	adjusted $R^2$
277.7	280.371	0.99226	0.991292

Plot of the residuals:

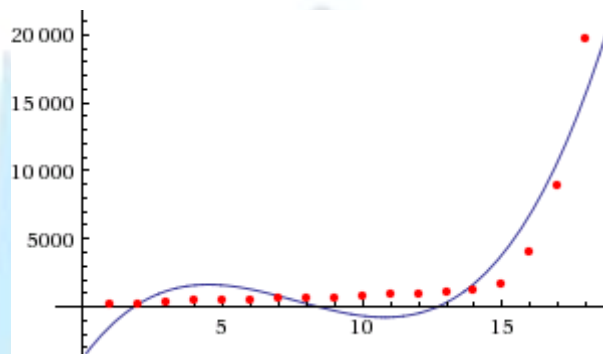


cubic fit {157, 192, 251, 380, 463, 502, 540, 620, 635, 711, 821, 882, 967, 1188, 1623, 3961, 8933, 19620}

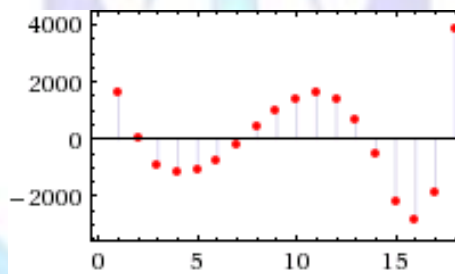
Least-squares best fit:

$$19.2334 x^3 - 441.523 x^2 + 2806.7 x - 3818.37$$

Fit diagnostics:



Plot of the residuals:



Table(ListCorrelate({157, 192, 251, 380, 463, 540, 620, 711, 821, 967, 1188, 1623, 3961, 8933, 19620}, {502, 635, 882}^(x^conjugate), {1}))

Input:

ListCorrelate[{157, 192, 251, 380, 463, 540, 620, 711, 821, 967, 1188, 1623, 3961, 8933, 19620}, {502, 635, 882}^x, {1}]

Result:

$$\left\{ 5 \times 2^{x^2+2} 3^2 x^{x^2+3} 49^{x^2} + 545 \times 2^{x^2+2} 9^{x^2+1} 49^{x^2} + 541 \times 3^2 x^{x^2+1} 98^{x^2} + \right. \\ \left. 125 \times 2^{x^2+3} 251^{x^2} + 67 \times 2^{x^2+4} 441^{x^2} + 5085 \times 502^{x^2} + 11487 \times 635^{x^2}, \right. \\ \left. 2^{x^2+6} 3^2 x^{x^2+1} 49^{x^2} + 11 \times 2^{x^2+2} 3^2 x^{x^2+3} 49^{x^2} + 29 \times 18^{x^2+2} 49^{x^2} + \right. \\ \left. 79 \times 9^{x^2+1} 98^{x^2} + 1017 \times 5^{x^2+1} 127^{x^2} + 8 \times 5^{x^2+3} 127^{x^2} + \right. \\ \left. 611 \times 2^{x^2+2} 251^{x^2} + 315 \times 2^{x^2+6} 251^{x^2} + 2^{x^2} 251^{x^2+1}, \right. \\ \left. 565 \times 9^{x^2+1} 98^{x^2} + 4571 \times 5^{x^2+1} 127^{x^2} + 297 \times 2^{x^2+2} 251^{x^2} + \right. \\ \left. 3 \times 2^{x^2+6} 251^{x^2} + 125 \times 2^{x^2+3} 441^{x^2} + 10107 \times 502^{x^2} \right\}$$





Code 931

The research results that we have obtained show that the process of sequencing in nature complex and determined, not only physical-chemical, but program-cybernetic and information principles. Here are some examples:

Example 1.

Table(ListCorrelate({157, 192, 251, 380, 463, 540, 620, 711, 821, 967, 1188, 1623, 3961, 8933, 19620}, {931}^(x^conjugate), {1}))

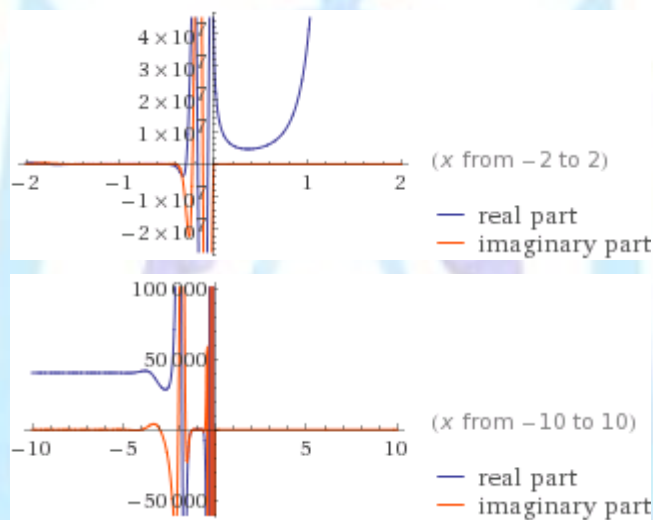
Input:

ListCorrelate[{157, 192, 251, 380, 463, 540, 620, 711, 821, 967, 1188, 1623, 3961, 8933, 19620}, {931}^x, {1}]

Result:

$$\{5721 \times 7^{2x^2+1} 19^{x^2} + 20 \times 19^{x^2+1} 49^{x^2}\}$$

Plots:



Example 2.

Percentile	0.01%	0.1%	1%	10%	64.6%	Sum
Sun λ (nm)	157	192	251	380	882	(931+931);

$$(157+192+251+380+882) = (931+931);$$

Example 3.

Percentile	0.1%	1%	10%	20%	30%	70%	Sum
Sun λ (nm)	192	251	380	463	540	967	(931+931+931)

Percentile	0.01%	0.1%	60%	90%	Sum
Sun λ (nm)	157	192	821	1623	(931+931+931)

Percentile	0.01%	0.1%	20%	30%	40%	60%	Sum
Sun λ (nm)	157	192	463	540	620	821	(931+931+931)



Example 4.

Percentile	1%	30%	40%	41.8%	50%	70%	Sum
Sun $\lambda$ (nm)	251	540	620	635	711	967	(931+931+931+931)

Percentile	0.01%	20%	40%	41.8%	64.6%	70%	Sum
Sun $\lambda$ (nm)	157	463	620	635	882	967	(931+931+931+931)

Percentile	0.01%	10%	20%	25.0%	40%	41.8%	70%	Sum
Sun $\lambda$ (nm)	157	380	463	502	620	635	967	(931+931+931+931)

Percentile	0.01%	1%	20%	30%	41.8%	50%	70%	Sum
Sun $\lambda$ (nm)	157	251	463	540	635	711	967	(931+931+931+931)

Example 5.

Percentile	0.1%	20%	25.0%	30%	40%	41.8%	60%	64.6%	Sum
Sun $\lambda$ (nm)	192	463	502	540	620	635	821	882	(931+931+931+931+931)

Percentile	0.1%	1%	30%	41.8%	64.6%	70%	80%	Sum
Sun $\lambda$ (nm)	192	251	540	635	882	967	1188	(931+931+931+931+931)

Percentile	0.1%	1%	10%	25.0%	30%	41.8%	70%	80%	Sum
Sun $\lambda$ (nm)	192	251	380	502	540	635	967	1188	(931+931+931+931+931)

Percentile	0.01%	0.1%	25.0%	30%	40%	41.8%	60%	80%	Sum
Sun $\lambda$ (nm)	157	192	502	540	620	635	821	1188	(931+931+931+931+931)

Example 6.

Percentile	10%	20%	25.0%	30%	40%	41.8%	50%	60%	70%	80%	90%	99%	99.9%	99.99%	Sum
Sun $\lambda$ (nm)	380	463	502	540	620	635	711	821	967	1188	1623	3961	8933	19620	(931 x 45)

etc.

he foregoing examples demonstrate that in nature there is really a software, cyberspace and information language for the description of which can be used systems theory and cybernetics, and which operates according to specific rules.





## Quantum physics

$$a_0 = \frac{\hbar^2}{mke^2} = 0.529 \times 10^{-10} \text{ meters}$$

Where:

$$\hbar = \frac{\text{Planck's constant}}{2\pi} = 1.055 \times 10^{-34} \text{ Joule-seconds}$$

$$m = \text{mass of electron} = 9.109 \times 10^{-31} \text{ kilograms}$$

$$k = \text{Coulomb's constant} = 8.988 \times 10^9 \frac{\text{Joule-meters}}{\text{Coulombs}^2}$$

$$e = \text{electron charge} = 1.602 \times 10^{-19} \text{ Coulombs}$$

$$\{[S7(0,529 \times 10^{-10}) \times 19] - [S19(0,529 \times 10^{-10}) \times 7] + (7 \times 19)\} = 931;$$

$$\{[S7(1,055 \times 10^{-34}) \times 19] - [S19(1,055 \times 10^{-34}) \times 7] + (7 \times 19)\} = 931;$$

$$\{[S7(9,109 \times 10^{-31}) \times 19] - [S19(9,109 \times 10^{-31}) \times 7] + (7 \times 19)\} = 931;$$

$$\{[S7(8,988 \times 10^9) \times 19] - [S19(8,988 \times 10^9) \times 7] + (7 \times 19)\} = 931;$$

$$\{[S7(1,602 \times 10^{-19}) \times 19] - [S19(1,602 \times 10^{-19}) \times 7] + (7 \times 19)\} = 931;$$

931 = Matrix code in nature

Planck force

$$F_P = \frac{m_P c}{t_P} = \frac{c^4}{G} = 1.21027 \times 10^{44} \text{ N.}$$

$$\{[S7(1.21027 \times 10^{44}) \times 19] - [S19(1.21027 \times 10^{44}) \times 7] + (7 \times 19)\} = 931;$$

931 = Matrix code in nature

As we can see, there really is a direct mathematical connection between the quantum physics and Matrix code in nature 931.

There are some examples:

$$1 \text{ radian} = \frac{360^\circ}{2\pi} = 57.2958^\circ$$

$$1^\circ = 3600 \text{ arcseconds}$$

$$1 \text{ radian} = 206265 \text{ arcseconds}$$

$$\{[S7(57.29580 \times 19)] - [S19(57.29580 \times 7)] + (7 \times 19)\} = 931;$$

$$\{[S7(206265 \times 19)] - [S19(206265 \times 7)] + (7 \times 19)\} = 931;$$

931 = Matrix code in nature

$$E \text{ (natural logarithmic base)} = 2,71828182845905$$

$$\{[S7(2,71828182845905 \times 19)] - [S19(2,71828182845905 \times 7)] + (7 \times 19)\} = 931;$$

931 = Matrix code in nature

$$\text{Pi} = 3,14159265358979;$$

$$\{[S7(3,14159265358979 \times 19)] - [S19(3,14159265358979 \times 7)] + (7 \times 19)\} = 931;$$

$$\ln 10 \text{ (natural log of 10)} = 2,30258509299405;$$

$$\{[S7(2,30258509299405 \times 19)] - [S19(2,30258509299405 \times 7)] + (7 \times 19)\} = 931;$$

931 = Matrix code in nature

Astronomical Unit (1 AU)



1.48955E+11 m

$$\{[S7(1.48955E+11 \text{ m}) \times 19] - [S19(1.48955E+11 \text{ m}) \times 7] + (7 \times 19)\} = 931;$$

931 = Matrix code in nature

1 Parsec

3.08561E+16 m

$$\{[S7(3.08561E+16 \text{ m}) \times 19] - [S19(3.08561E+16 \text{ m}) \times 7] + (7 \times 19)\} = 931;$$

931 = Matrix code in nature

1 light year

9.4605E+15 m

$$\{[S7(9.4605E+15 \text{ m}) \times 19] - [S19(9.4605E+15 \text{ m}) \times 7] + (7 \times 19)\} = 931;$$

931 = Matrix code in nature

Electron Rest Mass

9.109565E-31 kg

$$\{[S7(9.109565E-31 \text{ kg}) \times 19] - [S19(9.109565E-31 \text{ kg}) \times 7] + (7 \times 19)\} = 931;$$

931 = Matrix code in nature

Electron Rest Energy

8.187266E-14 J

$$\{[S7(8.187266E-14 \text{ J}) \times 19] - [S19(8.187266E-14 \text{ J}) \times 7] + (7 \times 19)\} = 931;$$

931 = Matrix code in nature

etc.

## Gravity

Gravity is an attractive force between all bodies that have mass. The force of gravity between body mass  $m_1$  and  $m_2$  is:

$$\mathbf{F}_g(\mathbf{r}_{12}) = -G \frac{m_1 m_2}{r_{12}^2} \mathbf{r}_{12}$$

where  $G$  is the gravitational constant,  $G = 6.67428 \cdot 10^{-11} \text{ Nm}^2\text{kg}^{-2}$ , and  $\mathbf{r}_{12}$  is a vector of their mutual position. Gravitational constant  $G$ , is an empirical physical constant for the calculation of gravitational attraction between bodies with mass.

Recent research reveals the force of gravity that gravity exists gravitational language for the description of which can be used systems theory and cybernetics, and which operates under separate laws of gravity. Reveals that gravity is not the result of attractive force bodies have mass, but it was created as a result of cybernetic information systems and laws. In fact, reveal that there are forces that created gravity. Created the gravitational constant  $G$ . These forces have decided that given the constant  $G$  has a value of  $G = 6.67428 \cdot 10^{-11} \text{ Nm}^2\text{kg}^{-2}$ . These studies reveal the possibility that in nature there is the periodic law and the periodic table of gravity and the speed of light.

It can be concluded that the cybernetic-information parameters gravity exhibit significantly more pronounced than classical. Attractive force between all bodies that have mass, and their empirical physical constants, are not incurred as a result of physical parameters in nature. They were built as a result of the program, kiberneticheskikh and information systems and laws. In the following, we will list the exact scientific evidence that the attractive force of gravity actually incurred as a result of systems theory and cybernetics to bodies that have mass. So gravity is not only attractive force bodies have mass. Gravity created programmatically cyber laws that determined the functioning of the attractive forces of the bodies that have mass, and therefore determined the functioning of the force of gravity.

This discovery will, in our view, fundamentally change our image of all phenomena in our material universe.

## The gravitational constant

The force of gravity which is the gravitational constant.  $G = 6,67428 \cdot 10^{-11} \text{ Nm}^2\text{kg}^{-2}$ . How is it done? We will try to explain some of these secrets.

Gravity is an attractive force between all bodies that have mass. The force of gravity between body mass  $m_1$  and  $m_2$  is:



$$\mathbf{F}_g(\mathbf{r}_{12}) = -G \frac{m_1 m_2}{r_{12}^3} \mathbf{r}_{12}$$

where  $G$  is the gravitational constant,  $G = 6.67428 \cdot 10^{-11} \text{ Nm}^2\text{kg}^{-2}$ , and  $\mathbf{r}_{12}$  is a vector of their mutual position. Gravitational constant  $G$ , is an empirical physical constant for the calculation of gravitational attraction between bodies with mass.

Recent research reveals the force of gravity that gravity exists gravitational language for the description of which can be used systems theory and cybernetics, and which operates under separate laws of gravity. Reveals that gravity is not the result of attractive force bodies have mass, but it was created as a result of cybernetic information systems and laws. In fact, reveal that there are forces that created gravity. Created the gravitational constant  $G$ . These forces have decided that given the constant  $G$  has a value of  $G = 6.67428 \cdot 10^{-11} \text{ Nm}^2\text{kg}^{-2}$ . These studies reveal the possibility that in nature there is the periodic law and the periodic table of gravity and the speed of light.

It can be concluded that the cybernetic-information parameters gravity exhibit significantly more pronounced than classical. Attractive force between all bodies that have mass, and their empirical physical constants, are not incurred as a result of physical parameters in nature. They were built as a result of the program, kibeerneetskih and information systems and laws. In the following, we will list the exact scientific evidence that the attractive force of gravity actually incurred as a result of systems theory and cybernetics to bodies that have mass. So gravity is not only attractive force bodies have mass. Gravity created programmatically cyber laws that determined the functioning of the attractive forces of the bodies that have mass, and therefore determined the functioning of the force of gravity.

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The force of gravity which is the gravitational constant.  $G = 6,67428 \cdot 10^{-11} \text{ Nm}^2\text{kg}^{-2}$ . How is it done? We will try to explain some of these secrets.

### ALGORITHM

$$\{[SA(R_{1,2,3,n}) \times B] - [SB(R_{1,2,3,n}) \times A] + (AB)\} = ABA;$$

SA, SB = Groups of AB numbers from X to Y

R<sub>1,2,3,n</sub> = Numbers from X to Y;

Solution:

$$A = 7; B = 19;$$

$$(A \times B \times A) = (7 \times 19 \times 7) = 931;$$

$$9,3,1 \rightarrow 323130$$

931 = Matrix code in nature

Number 931 represents the most perfect combination of sequencing arithmetic value in nature.

Example

Periodic table of chemical elements with 118 elements. Now let's put that number in the above algorithm. When we do, as a result we will have Algorithm gravitational constant 931:

$$R = 118;$$

$$\{[S_7(118) \times 19] - [S_{19}(118) \times 7] + (7 \times 19)\} = (7 \times 19 \times 7);$$

$$S_7(118) = (112+113+114+115+116+117+118) = 805;$$

$$S_{19}(118) = (98+99+100+101\dots, + 118) = 2071;$$

$$\{[(805 \times 19) - (2071 \times 7)] + (7 \times 19)\} = (7 \times 19 \times 7) = 931;$$

In this example, the number 931 is Algorithm gravitational constant.

## Analog code and code

Each number in the set of natural numbers from 1 to N has its analog expression. Analog expression of number 931 is number 139 This relationship code and analog code you'll see this: 139 || 931

Norm(ListCorrelate

Gravitational constant



Analog code		Code
↙		↘
139		931
↘		↙
	G	
	↓	
	G = 6,67428·10 <sup>-11</sup> Nm <sup>2</sup> kg <sup>-2</sup>	

G = Gravitational constant

The functioning of the force of gravity in the Cosmos is based on the correlation of numbers 139 and 931 with the gravitational constant G.

norm(ListCorrelate({139, 931}, {6,67428}^conjugate, {1}), p)

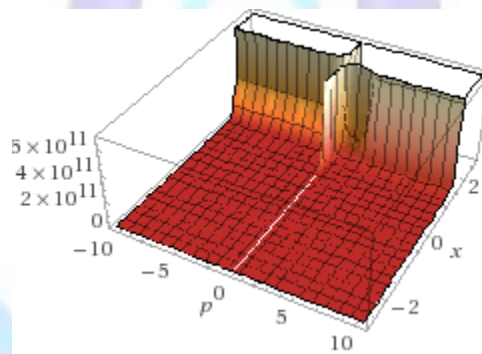
Input:

$$\left\| \text{ListCorrelate} \left[ \{139, 931\}, \{6, 67428\}^{x^*}, \{1\} \right] \right\|_p$$

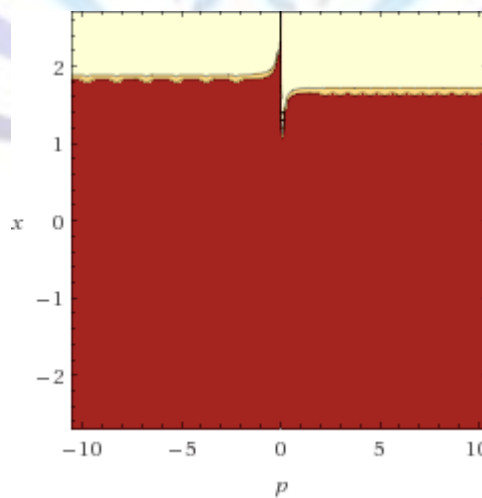
Result:

$$\left( \left| 931 \times 6^{x^*} + 139 \times 67428^{x^*} \right|^p + \left| 139 \times 6^{x^*} + 931 \times 67428^{x^*} \right|^p \right)^{\frac{1}{p}}$$

3D plot:



Contour plot:



Alternate form assuming p and x are positive:

$$6^x \left( (139 \times 11238^x + 931)^p + (931 \times 11238^x + 139)^p \right)^{\frac{1}{p}}$$



Alternate form assuming p and x are real:

$$\left( (931 \times 6^x + 139 \times 67428^x)^{p/2} + ((139 \times 6^x + 931 \times 67428^x)^2)^{p/2} \right)^{\frac{1}{p}}$$

$$(11238+11238+11238+11238+11238+11238) = 67428;$$

EuclideanDistance(ListCorrelate({139, 931}, {6, 67428}^{x^conjugate}), {1}), p)

Input:

$$\text{EuclideanDistance}\left[\text{ListCorrelate}\left[\{139, 931\}, \{6, 67428\}^{x^{x^*}}, \{1\}\right], p\right]$$

Result:

$$\sqrt{\left| -p + 931 \times 6^{x^{x^*}} + 139 \times 67428^{x^{x^*}} \right|^2 + \left| -p + 139 \times 6^{x^{x^*}} + 931 \times 67428^{x^{x^*}} \right|^2}$$

Alternate forms:

$$\sqrt{\left| -p + 931 \times 6^{x^{x^*}} + 139 \times 6^{2x^{x^*}} 1873^{x^{x^*}} \right|^2 + \left| -p + 139 \times 6^{x^{x^*}} + 931 \times 6^{2x^{x^*}} 1873^{x^{x^*}} \right|^2}$$

$$\sqrt{\left( \left( 931 \text{Im}\left(6^{x^{x^*}}\right) + 139 \text{Im}\left(67428^{x^{x^*}}\right) - \text{Im}(p) \right)^2 + \left( 139 \text{Im}\left(6^{x^{x^*}}\right) + 931 \text{Im}\left(67428^{x^{x^*}}\right) - \text{Im}(p) \right)^2 + \left( 931 \text{Re}\left(6^{x^{x^*}}\right) + 139 \text{Re}\left(67428^{x^{x^*}}\right) - \text{Re}(p) \right)^2 + \left( 139 \text{Re}\left(6^{x^{x^*}}\right) + 931 \text{Re}\left(67428^{x^{x^*}}\right) - \text{Re}(p) \right)^2 \right)}$$

d^2/dp^2 EuclideanDistance(ListCorrelate({139, 931}, {6,67428}^{x^conjugate}), {1}), p)

Derivative:

$$\frac{\partial^2}{\partial p^2} \left( \text{EuclideanDistance}\left[\text{ListCorrelate}\left[\{139, 931\}, \{6, 67428\}^{x^{x^*}}, \{1\}\right], p\right] \right) = \frac{\sqrt{\left( 931 \times 6^{x^{x^*}} + 139 \times 67428^{x^{x^*}} - p \right)^2 + \left( 139 \times 6^{x^{x^*}} + 931 \times 67428^{x^{x^*}} - p \right)^2} \left( -2 \left( 931 \times 6^{x^{x^*}} + 139 \times 67428^{x^{x^*}} - p \right) - 2 \left( 139 \times 6^{x^{x^*}} + 931 \times 67428^{x^{x^*}} - p \right) \right)^2}{4 \left( \left( 931 \times 6^{x^{x^*}} + 139 \times 67428^{x^{x^*}} - p \right)^2 + \left( 139 \times 6^{x^{x^*}} + 931 \times 67428^{x^{x^*}} - p \right)^2 \right)^{3/2}}$$

series of EuclideanDistance(ListCorrelate({139, 931}, {6, 67428}^{x^conjugate}), {1}), p wrt p

Input interpretation:

series	EuclideanDistance[ ListCorrelate[{139, 931}, {6, 67428}^{x^{x^*}}, {1}], p]	point	p = 0
--------	--	-------	-------

It is obvious that there is a gravitational language for the description of which can be used sisterma theory and cybernetics. It is obvious that the attractive force of the body with the same mass as a result of program activities, cyber and information systems and laws.





### Gravitational variables

The algorithm consists of gravitational constants gravitational variables. Gravitational variables are, in fact, the formula of systems theory and cybernetics. These formulas determine how they will function in the natural force of gravity. Here are some examples:

Gravitational variables

↙		↘
(A1 x 139		(A2 x 931)
↘		↙
	G	
	↓	
	G = 6,67428·10 <sup>-11</sup> Nm <sup>2</sup> kg <sup>-2</sup>	

Solution:

$$A1 = 0,00582; A2 = 0,0063;$$

Systems theory and cybernetics the gravitational variables 1

Example 1:

Table(ListCorrelate({0,00582, 0,0063, 139, 931 }, {6,67428}^(x^conjugate), {1}))

Input:

$$\text{ListCorrelate} \left[ \{0, 582, 0, 63, 139, 931\}, \{6, 67428\}^{x^x}, \{1\} \right]$$

Result:

$$\left\{ 139 \times 6^{x^x} + 97 \times 6^{2 \cdot x^x + 1} 1873^{x^x} + 7 \times 9^{x^x + 1} 7492^{x^x} + 931 \times 67428^{x^x}, \right. \\ \left. 7 \times 2^{x^x} 3^{x^x + 2} + 931 \times 6^{x^x} + 97 \times 6^{x^x + 1} + 139 \times 67428^{x^x} \right\}$$

Example 2

Table(ListCorrelate({0,00582, 0,0063 }, {139, 931}^(x^conjugate), {1}))

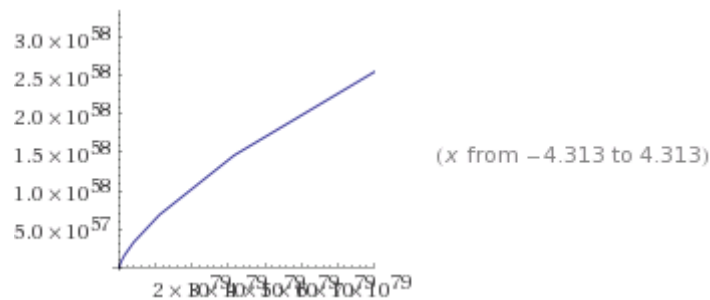
Input:

$$\text{ListCorrelate} \left[ \{0, 582, 0, 63\}, \{139, 931\}^{x^x}, \{1\} \right]$$

Result:

$$\left\{ 9 \times 7^{2 \cdot x^x + 1} 19^{x^x} + 582 \times 931^{x^x}, 645 \times 139^{x^x} \right\}$$

Parametric plot:







Gravitational variables

↙		↘
(A1 x 139)		(A2 x 931)
↓		↓
0,80898		5,86530
↘		↙
	G	
	↓	
	G = 6,67428 · 10 <sup>-11</sup> Nm <sup>2</sup> kg <sup>-2</sup>	

$$(0,00582 \times 139) = 0,80898;$$

$$(0,0063 \times 931) = 5,86530;$$

$$(0,80898 + 5,86530) = 6,67428;$$



$$G = 6,67428 \cdot 10^{-11} \text{ Nm}^2\text{kg}^{-2}$$

Table(ListCorrelate({0,80898, 5,86530, 139, 931}, {6,67428}^(x^conjugate), {1}))

Input:

$$\text{ListCorrelate}[\{0, 80\ 898, 5, 86\ 530, 139, 931\}, \{6, 67\ 428\}^{x^{x^*}}, \{1\}]$$

Result:

$$\{2^{x^{x^*}+4} 3^{x^{x^*}+2} + 13\ 483 \times 6^{2x^{x^*}+1} 1873^{x^{x^*}} + 43\ 265 \times 2^{2x^{x^*}+1} 16\ 857^{x^{x^*}} + 931 \times 67\ 428^{x^{x^*}}, \\ 43\ 265 \times 2^{x^{x^*}+1} 3^{x^{x^*}} + 931 \times 6^{x^{x^*}} + 13\ 483 \times 6^{x^{x^*}+1} + 4^{x^{x^*}+2} 9^{x^{x^*}+1} 1873^{x^{x^*}}\}$$

Example 3.

Table(ListCorrelate({0,80898, 5,86530}, {6,67428}^(x^conjugate), {1}))

Input:

$$\text{ListCorrelate}[\{0, 80\ 898, 5, 86\ 530\}, \{6, 67\ 428\}^{x^{x^*}}, \{1\}]$$

Result:

$$\{5 \times 6^{x^{x^*}} + 13\ 483 \times 6^{2x^{x^*}+1} 1873^{x^{x^*}} + 43\ 265 \times 2^{2x^{x^*}+1} 16\ 857^{x^{x^*}}, \\ 43\ 265 \times 2^{x^{x^*}+1} 3^{x^{x^*}} + 13\ 483 \times 6^{x^{x^*}+1} + 5 \times 67\ 428^{x^{x^*}}\}$$

Sizes A1, 2,3, n can have different numerical values, so the force of gravity in nature manifests itself in various ways. So it must be, because the force of gravity manifests itself as an attractive force between all bodies that have mass. The force of gravity between body mass m1 and m2 is:

$$\mathbf{F}_g(\mathbf{r}_{12}) = -G \frac{m_1 m_2}{r_{12}^3} \mathbf{r}_{12}$$

where G is the gravitational constant, G = 6,67428 · 10<sup>-11</sup> Nm<sup>2</sup>kg<sup>-2</sup>, a r12 is the vector of their mutual position.

Input elements to determine the gravitational constant may have different input elements. Here's another example:

Example 4.

ListCorrelate({0,80898, 5,86530, 139, 931 }, {6,67428}^(x^conjugate), {1})

Result:



$$\left\{ 2^{x^{x^2}} + 4 \cdot 3^{x^{x^2}} + 2 + 13483 \times 6^{2x^{x^2}+1} 1873^{x^{x^2}} + 43265 \times 2^{2x^{x^2}+1} 16857^{x^{x^2}} + 931 \times 67428^{x^{x^2}}, \right.$$

$$\left. 43265 \times 2^{x^{x^2}+1} 3^{x^{x^2}} + 931 \times 6^{x^{x^2}} + 13483 \times 6^{x^{x^2}+1} + 4^{x^{x^2}+2} 9^{x^{x^2}+1} 1873^{x^{x^2}} \right\}$$

$$\left\{ 5 \times 6^{x^{x^2}} + 13483 \times 6^{2x^{x^2}+1} 1873^{x^{x^2}} + 43265 \times 2^{2x^{x^2}+1} 16857^{x^{x^2}}, \right.$$

$$\left. 43265 \times 2^{x^{x^2}+1} 3^{x^{x^2}} + 13483 \times 6^{x^{x^2}+1} + 5 \times 67428^{x^{x^2}} \right\}$$

$$43265 = (139 \cdot 184) + (931 \cdot 19);$$

$$67428 = (139 \cdot 465) + (931 \cdot 3)$$

Systems theory and cybernetics in the gravitational variables

Gravitational variable

↙		↘
(B1 x 139		(B2 x 931
↘		↙
	G	
	↓	
	G = 6,67428 · 10 <sup>-11</sup> Nm <sup>2</sup> kg <sup>-2</sup>	

Solution:

$$B1 = 0,01513; B2 = 0,00491$$

Example 1.

Table(ListCorrelate({0,01513, 0,00491, 139, 931 }, {6,67428}^(x^conjugate), {1}))

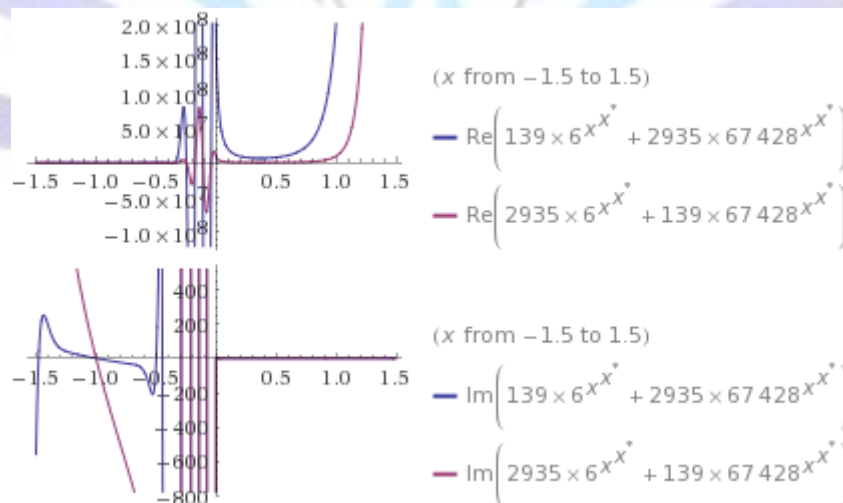
Input:

$$\text{ListCorrelate}\left[\{0, 1513, 0, 491, 139, 931\}, \{6, 67428\}^{x^{x^2}}, \{1\}\right]$$

Result:

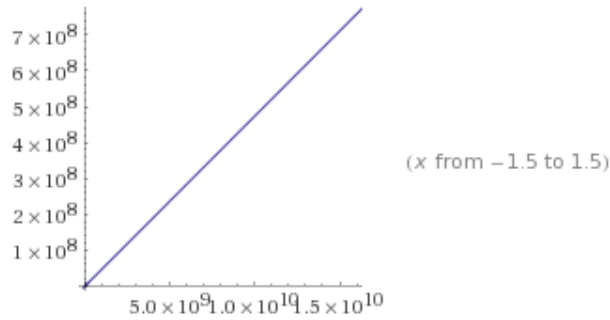
$$\left\{ 139 \times 6^{x^{x^2}} + 2935 \times 67428^{x^{x^2}}, 2935 \times 6^{x^{x^2}} + 139 \times 67428^{x^{x^2}} \right\}$$

Plots:





Parametric plot:



Gravitational variable

(B1 x 139)		(B2 x 931)
↓		↓
2,10307		4,57121
↘		↙
G		
↓		
G = 6,67428 · 10 <sup>-11</sup> Nm <sup>2</sup> kg <sup>-2</sup>		

Solution:

B1= 0,01513; B2 = 0,00491

(0,01513 x 139) = 2,10307;

(0,00491x 931) = 4,57121;

(2,10307 + 4,57121) = 6,67428;

In this example, the gravitational constant G as a result of materialization of some other numeric values of attractive force of the body that have mass. The result of the materialization of the gravitational constant:G = 6,67428 · 10<sup>-11</sup> Nm<sup>2</sup>kg<sup>-2</sup>

Table(ListCorrelate({0,01513, 0,00491}, {139, 931}^(x^conjugate), {1}))

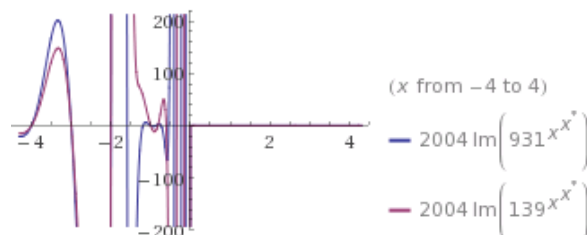
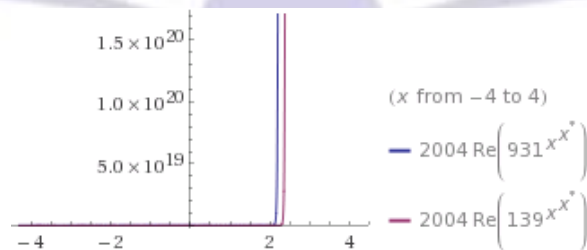
Input:

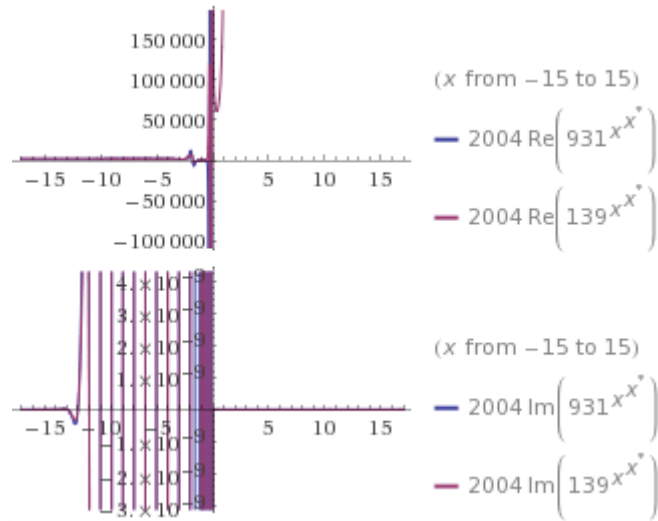
ListCorrelate[{0, 1513, 0, 491}, {139, 931}^(x^x), {1}]

Result:

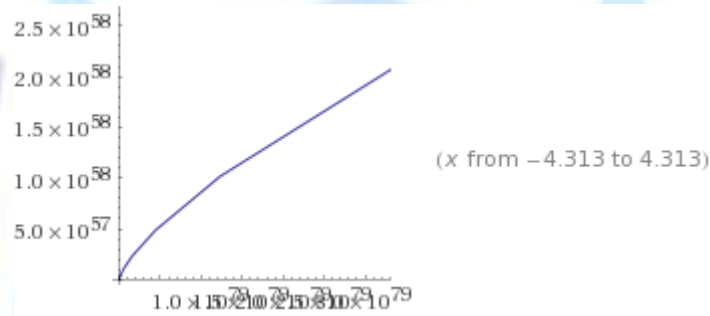
{2004 × 931<sup>x<sup>x</sup></sup>, 2004 × 139<sup>x<sup>x</sup></sup>}

Plots:





Parametric plot:



Table(ListCorrelate({2,10307, 4,57121}, {6,67428}^(x^conjugate), {1}))

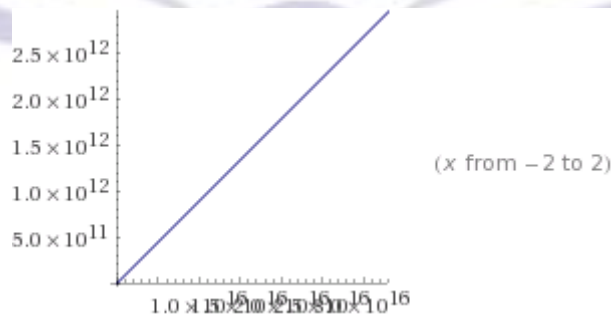
Input:

ListCorrelate[{2, 10 307, 4, 57 121}, {6, 67 428} $x^{x^x}$ , {1}]

Result:

$\{2^{x^{x^x}+1} 3^{x^{x^x}} + 2^{x^{x^x}+2} 3^{x^{x^x}} + 67 428^{x^{x^x}+1},$   
 $1873 \times 6^{x^{x^x}+2} + 2^{2x^{x^x}+1} 16 857^{x^{x^x}} + 4^{x^{x^x}+1} 16 857^{x^{x^x}}\}$

Parametric plot:





Systems theory and cybernetics the gravitational variables 3

Gravitational variable 3

↙		↘
(C1 x 139)		(C1 x 931)
↘		↙
	G	
	↓	
	G = 6,67428·10 <sup>-11</sup> Nm <sup>2</sup> kg <sup>-2</sup>	

Solution:

C1= 0,02444; C2 = 0,00352

Example 1.

Table(ListCorrelate({0,02444, 0,00352, 139, 931 }, {6,67428}^(x^conjugate), {1}))

Input:

ListCorrelate[ {0, 2444, 0, 352, 139, 931}, {6, 67 428}^x, {1}]

Result:

$$\left\{ 139 \times 6^{x^x} + 11 \times 2^{2 \cdot x^x + 5} 16 857^{x^x} + 611 \times 4^{x^x + 1} 16 857^{x^x} + 931 \times 67 428^{x^x}, \right. \\ \left. 611 \times 2^{x^x + 2} 3^{x^x} + 11 \times 2^{x^x + 5} 3^{x^x} + 931 \times 6^{x^x} + 139 \times 67 428^{x^x} \right\}$$

Example 2

	Gravitational variable 3	
↙		↘
(C1 x 139)		(C2 x 931)
↓		↓
3,39716		3,27712
↘		↙
	G	
	↓	
	G = 6,67428·10 <sup>-11</sup> Nm <sup>2</sup> kg <sup>-2</sup>	

(0,02444 x 139) = 3,39716;

(0,00352x 931) = 3,27712;

(3,39716+ 3,27712) = 6,67428;

Table(ListCorrelate({3,39716, 3,27712, 139, 931}, {6,67428}^(x^conjugate), {1}))

Input:

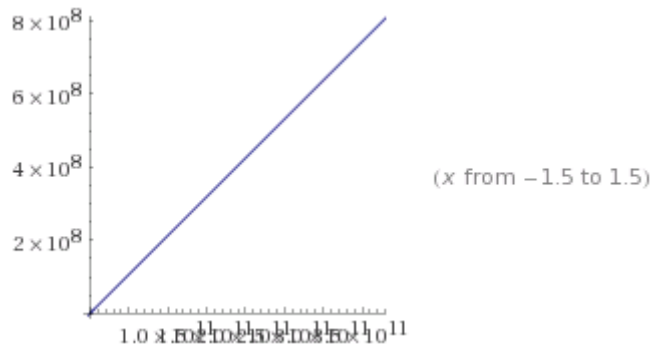
ListCorrelate[ {3, 39 716, 3, 27 712, 139, 931}, {6, 67 428}^x, {1}]

Result:

$$\left\{ 139 \times 6^{x^x} + 6^{x^x + 1} + 9929 \times 4^{x^x + 1} 16 857^{x^x} + 433 \times 4^{x^x + 3} 16 857^{x^x} + 931 \times 67 428^{x^x}, \right. \\ \left. 9929 \times 2^{x^x + 2} 3^{x^x} + 433 \times 2^{x^x + 6} 3^{x^x} + 931 \times 6^{x^x} + 6^{2 \cdot x^x + 1} 1873^{x^x} + 139 \times 67 428^{x^x} \right\}$$



Parametric plot:



In this example, the gravitational constant designated program, cybernetic and information principles, ie systems theory and cybernetics. Thus, the force of gravity is determined by the gravitational constant, but is determined the forces that have created this constant. Gravitational constant G is the result of the correlation of different gravitational variables. And that will be determined by the forces of the variable outside the gravitational constant and the force of attraction outside bodies that have mass. From this it follows that the gravitational force generated as a result of forces outside of matter and outside the force of gravity.

Systems theory and cybernetics the gravitational variables 4

Gravitational variable 4

↙		↘
(D1 x 139		(D1 x 931
↘		↙
	G	
	↓	
	G = 6,67428 · 10 <sup>-11</sup> Nm <sup>2</sup> kg <sup>-2</sup>	

Solution:

$$D1 = 0,03375; D2 = 0,00213$$

Example 1.

Table(ListCorrelate({0,03375, 0,00213, 139, 931}, {6,67428}^(x^conjugate), {1}))

Input:

ListCorrelate[{0, 3375, 0, 213, 139, 931}, {6, 67 428}^x, {1}]

Result:

$$\left\{ 139 \times 6^{x^2} + 71 \times 3^{2x^2+1} 7492^{x^2} + 125 \times 3^{2x^2+3} 7492^{x^2} + 931 \times 67428^{x^2}, \right. \\ \left. 71 \times 2^{x^2} 3^{x^2+1} + 125 \times 2^{x^2} 3^{x^2+3} + 931 \times 6^{x^2} + 139 \times 67428^{x^2} \right\}$$

Example 2.

(D1 x 139)		(D2 x 931)
↓		↓
4,69125		1,98303
↘		↙
	G	
	↓	
	G = 6,67428 · 10 <sup>-11</sup> Nm <sup>2</sup> kg <sup>-2</sup>	

$$(0,03375 \times 139) = 4,69125;$$





$$(0,00213 \times 931) = 1,98303;$$

$$(4,69125 + 1,98303) = 6,67428;$$

Table(ListCorrelate({04,69125, 1,98303, 139, 931}, {6,67428}^{(x^{\wedge}conjugate)}, {1}))

Input:

$$\text{ListCorrelate}[\{4, 69\ 125, 1, 98\ 303, 139, 931\}, \{6, 67\ 428\}^{x^x}, \{1\}]$$

Result:

$$\{2^{x^x} + 4\ 3^{x^x} + 2 + 168\ 359 \times 67\ 428^{x^x}, 168\ 359 \times 6^{x^x} + 4^{x^x} + 2\ 9^{x^x} + 1\ 1873^{x^x}\}$$

In this example, the gravitational force generated as a result of forces outside of matter and outside the force of gravity.

5 Systems theory and cybernetics the gravitational variables 5.

Gravitational variables 5.

(E1 x 139)		(E1 x 931)
↘		↙
	G	
	↓	
	G = 6,67428 · 10 <sup>-11</sup> Nm <sup>2</sup> kg <sup>-2</sup>	

Solution:

$$E1 = 0,04306; E2 = 0,00074$$

(E1 x 139)		(E2 x 931)
↓		↓
5,98534		0,68894
↘		↙
	G	
	↓	
	G = 6,67428 · 10 <sup>-11</sup> Nm <sup>2</sup> kg <sup>-2</sup>	

$$(0,04306 \times 139) = 5,98534;$$

$$(0,00074 \times 931) = 0,68894;$$

$$(5,98534 + 1,98303) = 6,67428;$$

etc.

We conclude that out of the force of gravity really works and there are forces that determine how they will occur and how it will funkcikonisati gravity.

Gravitational variables as a result of your actions create gravitational constant G. These variables are correlated with one another, as a result give us Matrix code in nature 931 and its analogue code. Here are some examples:

Gravitational variables	A1	Gravitational variables		Gravitational variables	A2	Gravitational variables
↓	Code 139	↓		↓	Code 931	↓
0,00582	-	0,80898		0,0063	-	5,86530
-	B1	-		-	B2	-
0,01513	-	2,10307		0,00491	-	4,57121
-	C1	-		-	C2	-
0,02444	-	3,39716		0,00352	-	3,27712



-	D1	-	-	-	D2	-
0,03375	-	4,69125		0,00213	-	1,98303
-	E1	-		-	E2	-
0,04306	-	5,98534;		0,00074	-	0,68894

Example 1.

A1 and A2

↓

$$(0,00582 \times 139) = 0,80898; \quad (0,0063 \times 931) = 5,86530;$$

B1 and B2

$$(0,01513 \times 139) = 2,10307; \quad (0,00491 \times 931) = 4,57121;$$

Correlation:

$$[(0,01513 - 0,00582) \times 100.000] = 931;$$

$$[(0,0063 - 0,00491) \times 100.000] = 139;$$

The forces of gravity are so structured that we, when we decode their internal structure as a result of giving number 931 and its analog in, and it's number 139.

Example 2.

B1 and B2

$$(0,01513 \times 139) = 2,10307; \quad (0,00491 \times 931) = 4,57121;$$

C1 and C2

$$(0,02444 \times 139) = 3,39716; \quad (0,00352 \times 931) = 3,27712;$$

Correlation:

$$[(0,02444 - 0,01513) \times 100.000] = 931;$$

$$[(0,00491 - 0,00352) \times 100.000] = 139;$$

Example 3.

C1, C2 and D1, D2

Gravitational variables	C1	Gravitational variables	-	Gravitational variables	C2	Gravitational variables
0,02444	-	3,39716	-	0,00352	-	3,27712
-	D1	-	-	-	D2	-
0,03375	-	4,69125	-	0,00213	-	1,98303

$$(0,02444 \times 139) = 3,39716; \quad (0,00352 \times 931) = 3,27712;$$

$$(0,03375 \times 139) = 4,69125; \quad (0,00213 \times 931) = 1,98303;$$

Correlation:

$$[(0,03375 - 0,02444) \times 100.000] = 931;$$

$$[(0,00352 - 0,00213) \times 100.000] = 139;$$

Example 4.

D1, D2 and E1, E2

Gravitational variables	D1	Gravitational variables		Gravitational variables	D2	Gravitational variables
0,03375	-	4,69125		0,00213	-	1,98303
-	E1	-		-	E2	-
0,04306	-	5,98534;		0,00074	-	0,68894

$$(0,04306 \times 139) = 5,98534 ; \quad (0,00074 \times 931) = 0,68894;$$



Correlation:

$$\begin{aligned}
 & [(0,04306- 0,03375) \times 100.000] = 931; \\
 & [(0,00213- 0,00074) \times 100.000] = 139; \\
 & (0,04306 \times 139) = 5,98534; \\
 & (0,00074 \times 931) = 0,68894; \\
 & (4,69125+ 1,98303) = 6,67428; \\
 & (5,98534 + 0,68894) = 6,67428; \\
 & \text{etc.}
 \end{aligned}$$

In the above examples, the force of gravity we have found that their internal structure really makes gravitational number 931 and its analog in, and it's number 139.

We conclude that there is indeed gravitationally language for the description of which can be used systems theory and cybernetics, or software, cyber and information systems and laws. We can very effectively investigate cyber, information and system characteristics of gravity.

### Gravity and the speed of light

According to the general theory of relativity, the effect of gravity space is expanding at light speed. It was experimentally confirmed that the speed of gravity is equal to the speed of light within the experimental error of 1%. The speed of light is the maximum speed at which a vacuum is 299,792,458 meters per second.

$$c = 299.792.458 \text{ m/s}$$

Thus, the gravity and the speed of light are correlated. Particularly interesting is the fact that there is one and the same programming language cyberspace gravity and the speed of light for the description can be used systems theory and cybernetics. Gravity, and the speed of light are one and the same constants and variables. These are the codes 139 and 931 It is obvious that there is one and the same programming language for creating both of these phenomena in nature. Here is concrete evidence:

The constant speed of light

139		931
↘		↙
	↓	
	$c = 299.792.458 \text{ m/s}$	

C = Speed of light

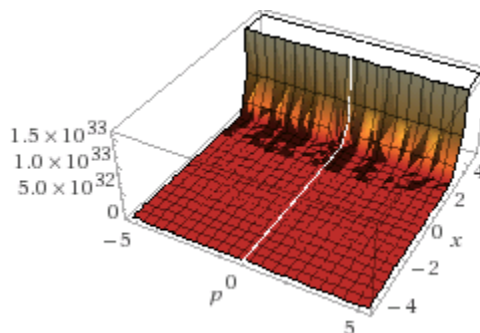
Correlation 1

`norm(ListCorrelate({6,67428}, {299792458}^conjugate, {1}), p)`

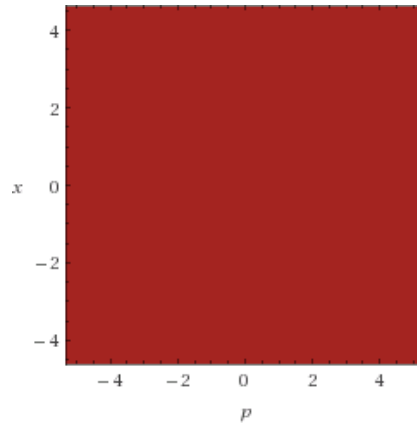
Input:

`||ListCorrelate[{6, 67 428}, {299 792 458}^x, {1}]||_p`

3D plot:



Contour plot:



Alternate forms:

$$(33\,717^p (2^{\operatorname{Re}(x)+1} 149\,896\,229^{\operatorname{Re}(x)})^p)^{\frac{1}{p}}$$

$$\left[ 3 \times 2^{x+1} 149\,896\,229^x + 16\,857 \times 2^{x+2} 149\,896\,229^x \right]$$

$$\exp \left( \frac{2 i \pi \left[ \frac{1}{2} - \frac{\operatorname{Im}(p \log(|3 \times 2^{x+1} 149\,896\,229^x + 16\,857 \times 2^{x+2} 149\,896\,229^x|))}{2 \pi} \right]}{p} \right)$$

Alternate form assuming p and x are positive:

$$33\,717 \times 2^{x+1} 149\,896\,229^x$$

Alternate form assuming p and x are positive:

$$33\,717 \times 2^{\operatorname{Re}(x)+1} 149\,896\,229^{\operatorname{Re}(x)}$$

Alternate form assuming p and x are real:

$$\left[ 3 \times 2^{x+1} 149\,896\,229^x + 16\,857 \times 2^{x+2} 149\,896\,229^x \right]$$

$$\operatorname{norm}(\operatorname{ListCorrelate}(\{139, 931\}, \{299792458\}^{\operatorname{conjugate}}, \{1\}), p)$$

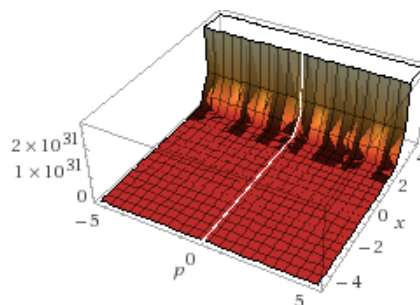
Input:

$$\left\| \left\| \operatorname{ListCorrelate} \left[ \{139, 931\}, \{299\,792\,458\}^x, \{1\} \right] \right\| \right\|_p$$

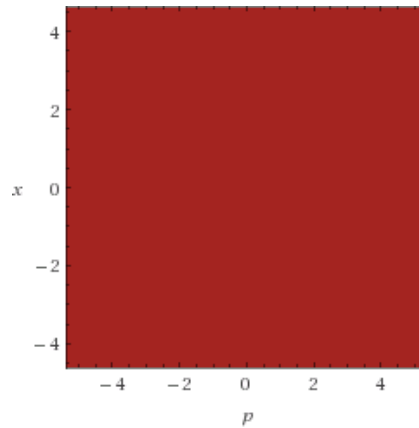
Result:

$$\left( \left( 19 \times 7^{x+2} 42\,827\,494^x + 139 \times 299\,792\,458^x \right)^p \right)^{\frac{1}{p}}$$

3D plot:



Contour plot:



**Alternate forms:**

$$\left| 19 \times 7^{x^2+2} 42\,827\,494^{x^2} + 139 \times 299\,792\,458^{x^2} \right| \exp \left[ \frac{2i\pi \left[ \frac{1}{2} - \frac{\text{Im} \left( p \log \left( \left| 19 \times 7^{x^2+2} 42\,827\,494^{x^2} + 139 \times 299\,792\,458^{x^2} \right| \right) \right)}{2\pi} \right]}{p} \right]$$

Alternate form assuming p and x are positive:

$$535 \times 2^{x^2+1} 149\,896\,229^x$$

Alternate form assuming p and x are positive:

$$535 \times 2^{\text{Re}(x)+1} 149\,896\,229^{\text{Re}(x)}$$

Alternate form assuming p and x are real:

$$\left| 19 \times 7^{x^2+2} 42\,827\,494^{x^2} + 139 \times 299\,792\,458^{x^2} \right|$$

**Correlation 2.**

norm(ListCorrelate({6,67428, 299792458}, {139, 931}^conjugate, {1}), p)

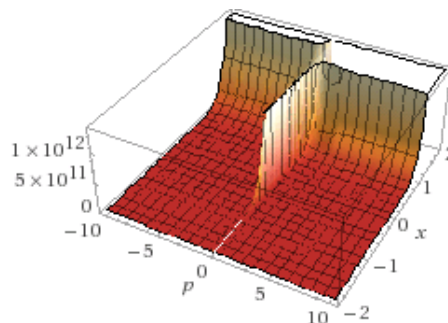
Input:

$$\left\| \text{ListCorrelate} \left[ \{6, 67\,428, 299\,792\,458\}, \{139, 931\}^{x^2}, \{1\} \right] \right\|_p$$

Result:

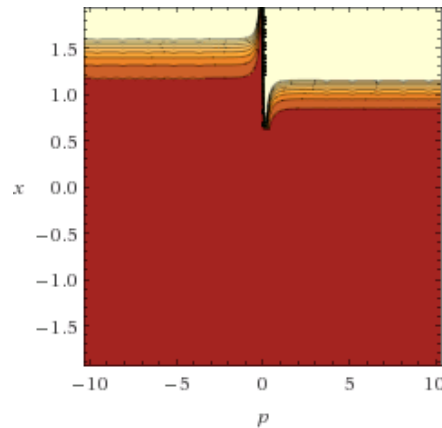
$$\left( \left| 42\,827\,494 \times 7^{2x^2+1} 19^{x^2} + 67\,428 \times 139^{x^2} + 6 \times 931^{x^2} \right|^p + \left| 299\,792\,464 \times 139^{x^2} + 67\,428 \times 931^{x^2} \right|^p \right)^{\frac{1}{p}}$$

3D plot:





Contour plot:



Alternate forms:

$$\left( \left| 299\,792\,464 \times 139^{x^*} + 67\,428 \times 931^{x^*} \right|^p + \left| 67\,428 \times 139^{x^*} + 299\,792\,464 \times 931^{x^*} \right|^p \right)^{\frac{1}{p}}$$

$$\left( 4^p \left( \left| 74\,948\,116 \times 7^{2x^*} 19^{x^*} + 16\,857 \times 139^{x^*} \right|^p + \left| 74\,948\,116 \times 139^{x^*} + 16\,857 \times 931^{x^*} \right|^p \right) \right)^{\frac{1}{p}}$$

Alternate form assuming p and x are positive:

$$\left( (299\,792\,464 \times 139^x + 67\,428 \times 931^x)^p + (67\,428 \times 139^x + 299\,792\,464 \times 931^x)^p \right)^{\frac{1}{p}}$$

Alternate form assuming p and x are real:

$$\left( (42\,827\,494 \times 7^{2x+1} 19^x + 67\,428 \times 139^x + 6 \times 931^x)^2 \right)^{p/2} + \left( (299\,792\,464 \times 139^x + 67\,428 \times 931^x)^2 \right)^{p/2} \right)^{\frac{1}{p}}$$

ContraharmonicMean[ListCorrelate[{6, 67428, 299792458}, {139, 931}^Conjugate[x], {1}], p]

Input:

ContraharmonicMean[{{ListCorrelate[{6, 67 428, 299 792 458}, {139, 931}^x, {1}], p}}

Result:

ContraharmonicMean[{{299 792 464 × 139<sup>x</sup> + 67 428 × 931<sup>x</sup>,  
42 827 494 × 7<sup>2x+1</sup> 19<sup>x</sup> + 67 428 × 139<sup>x</sup> + 6 × 931<sup>x</sup>}, p}}

Variable speed of light 1.

(A1 x 139		(A2 x 931)
↘		↙
	↓	
	$c = 299.792.458 \text{ m/s}$	

Solution:

A1 = 812; A2 = 321890;

Systems theory and kibernetika the constant speed of light 1

Example 1.

Table(ListCorrelate({812, 321890, 139, 931 }, {299792458}^(x^conjugate), {1}))

Input:



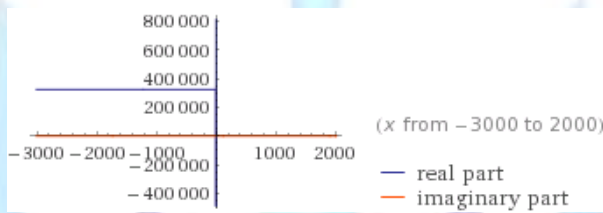
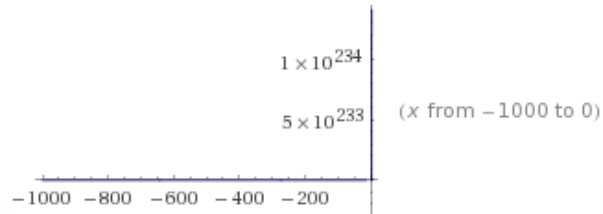


$$\text{ListCorrelate}[\{812, 321\,890, 139, 931\}, \{299\,792\,458\}^{x^x}, \{1\}]$$

Result:

$$\left\{ 29 \times 2^{x^x+2} 7^{x^x+1} 21\,413\,747^{x^x} + 19 \times 7^{x^x+2} 42\,827\,494^{x^x} + 160\,945 \times 2^{x^x+1} 149\,896\,229^{x^x} + 139 \times 299\,792\,458^{x^x} \right\}$$

Plots:



Example 2.

(A1 x 139)		(A2 x 931)
↓		↓
112868		299679590
↘		↙
	↓	
	$c = 299.792.458 \text{ m/s}$	

$$(812 \times 139) = 112868;$$

$$(321890 \times 931) = 299679590;$$

$$(112868 + 299679590) = 299792458;$$

$$\text{Table}(\text{ListCorrelate}(\{112868, 299679590\}, \{299792458\}^{x^{\text{conjugate}}}, \{1\}))$$

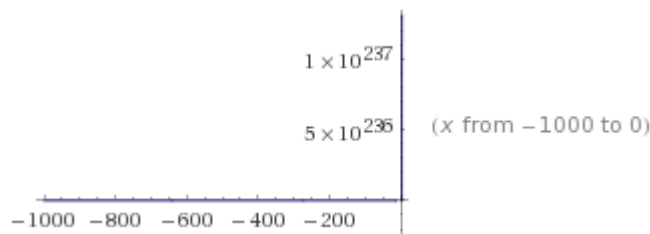
Input:

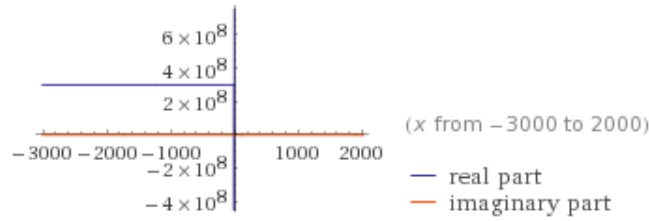
$$\text{ListCorrelate}[\{112\,868, 299\,679\,590\}, \{299\,792\,458\}^{x^x}, \{1\}]$$

Result:

$$\left\{ 4031 \times 2^{x^x+2} 7^{x^x+1} 21\,413\,747^{x^x} + 3\,057\,955 \times 2^{x^x+1} 7^{x^x+2} 21\,413\,747^{x^x} \right\}$$

Plots:





Variable speed of light 2.

(B1 x 139)		(B2 x 931)
↘		↙
	↓	
	$c = 299.792.458 \text{ m/s}$	

Solution:

B1 = 1743; B2 = 321751;

(B1 x 139)		(B2 x 931)
↓		↓
242277		299550181
↘		↙
	↓	
	$c = 299.792.458 \text{ m/s}$	

$(1743 \times 139) = 242277;$

$(3211751 \times 931) = 299550181;$

$(242277 + 299550181) = 299792458;$

Correlation variables 1 and 2

$(B1 - A1) = (1743 - 812) = 931;$

$(A2 - B2) = (321890 - 321751) = 139;$

Variable speed of light 3.

(C1 x 139)		(C2 x 931)
↘		↙
	↓	
	$c = 299.792.458 \text{ m/s}$	

Solution:

C1 = 2674; C2 = 321612;

(C1 x 139)		(C2 x 931)
↓		↓
371686		299420772
↘		↙
	↓	
	$c = 299.792.458 \text{ m/s}$	

$(2674 \times 139) = 371686$

$(321751 \times 931) = 299420772;$

$(371686 + 299420772) = 299792458;$ Correlation of variables:



$$(C1 - B1) = (2674 - 1743) = 931;$$

$$(A2 - B2) = (321890 - 321751) = 139;$$

Recap variable speed of light

Creator of the Cosmos		
↙		↘
139		931
↓		↓
(139*812)		(931*321890)
(139*1743)		(931*321751)
(139*2674)		(931*321612)
(139*3605)		(931*321473)
(139*4536)		(931*321334)
(139*5467)		(931*321195)
(139*6398)		(931*321334)
(139*7329)		(931*321195)
(139*8260)		(931*321334)
(139*9191)		(931*321195)
(139*10122)		(931*321056)
(139*11053)		(931*320917)
(139*11984)		(931*320917)
(139*12915)		(931*320778)
↘		↙
$c = 299.792.458 \text{ m/s}$		

$$[(139 * 812) + (931 * 321890)] = 299.792.458;$$

$$[(139 * 1743) + (931 * 321751)] = 299.792.458;$$

$$[(139 * 2674) + (931 * 321612)] = 299.792.458;$$

$$[(139 * 3605) + (931 * 321473)] = 299.792.458;$$

↓

$$c = 299.792.458 \text{ m/s}$$

Variable speed of light connects Matrih code in nature of 931 (1743-812) = 931;

$$(2674-1743) = 931;$$

$$(3605-2674) = 931;$$

etc..

Correlation gravitational constant and the speed of light

Gravitational constant

139		931
↘		↙
G		
↓		
$G = 6,67428 \cdot 10^{-11} \text{ Nm}^2\text{kg}^{-2}$		

B1 and B2



$$(0,01513 \times 139) = 2,10307; \quad (0,00491 \times 931) = 4,57121;$$

$$c = 299.792.458 \text{ m/s}$$

Speed of light

$$299.792.458. = ( 931 * 421 ) + ( 491 * 609777 )$$

Here are a few examples of these correlations:

$$299792458 = ( 931 * 421 ) + ( 491 * 609777 )$$

$$299792458 = ( 931 * 912 ) + ( 491 * 608846 )$$

$$299792458 = ( 931 * 1403 ) + ( 491 * 607915 )$$

$$299792458 = ( 931 * 1894 ) + ( 491 * 606984 )$$

$$299792458 = ( 931 * 2385 ) + ( 491 * 606053 )$$

$$299792458 = ( 931 * 2876 ) + ( 491 * 605122 )$$

$$299792458 = ( 931 * 3367 ) + ( 491 * 604191 )$$

$$299792458 = ( 931 * 3858 ) + ( 491 * 603260 )$$

$$299792458 = ( 931 * 4349 ) + ( 491 * 602329 )$$

$$299792458 = ( 931 * 4840 ) + ( 491 * 601398 )$$

$$299792458 = ( 931 * 5331 ) + ( 491 * 600467 )$$

$$299792458 = ( 931 * 5822 ) + ( 491 * 599536 )$$

$$299792458 = ( 931 * 6313 ) + ( 491 * 598605 )$$

etc.

Previously we mentioned that the gravitational constant  $G = 6,67428 \cdot 10^{-11} \text{ Nm}^2\text{kg}^{-2}$ ,

Thus, the force of gravity and the speed of light establish direct mathematical correlation

### Correlation of gravity and the speed of light

Input:

$$\{299\ 792\ 458, 0, 68\ 894\}$$

Number line:



Total:

$$299\ 792\ 458 + 0 + 68\ 894 = 299\ 861\ 352$$

Vector length:

$$350 \sqrt{733\ 677\ 735\ 674} \approx 2.99792 \times 10^8$$

Normalized vector:

$$\left( \frac{21\ 413\ 747}{25 \sqrt{733\ 677\ 735\ 674}}, 0, \frac{4921}{25 \sqrt{733\ 677\ 735\ 674}} \right)$$

Spherical coordinates (radial, polar, azimuthal):

$$r \approx 2.99792 \times 10^8, \quad \theta \approx 89.9868^\circ, \quad \phi \approx 0^\circ$$

**Gravitation calculation**

primary mass:

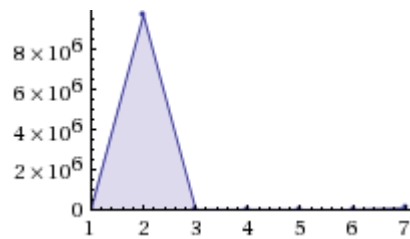
secondary mass:

distance:

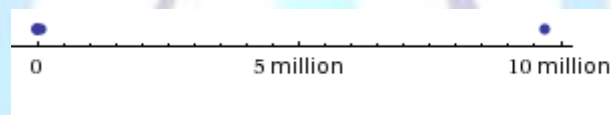
Input:

{5, 9 721 986, 60, 6367, 5, 6, 67 428}

Plot:



Number line:



Total:

$$5 + 9\,721\,986 + 60 + 6367 + 5 + 6 + 67\,428 = 9\,795\,857$$

Statistics:

mean	$1.399 \times 10^6$
median	60
sample standard deviation	$3.67 \times 10^6$

mean {5, 9721986, 60, 6367, 5, 6, 67428}

Input:

mean {5, 9 721 986, 60, 6367, 5, 6, 67 428}

Result:

$$\frac{9\,795\,857}{7} \approx 1.39941 \times 10^6$$

correlation {5, 9721986, 60, 6367, 5, 6, 67428}

Input:

ListCorrelate[{5, 9 721 986, 60, 6367, 5, 6, 67 428},  
{5, 9 721 986, 60, 6367, 5, 6, 67 428}^\*, {1}]

Result:

{94 521 598 861 755, 633 084 683, 717 434 332 842, 540 333 822, 540 333 822,  
717 434 332 842, 633 084 683}



ratio of {5, 9721986, 60, 6367, 5, 6, 67428}

Input interpretation:

5 : 9 721 986 : 60 : 6367 : 5 : 6 : 67 428

Ratio with sum of entries normalized to 1:

$5.1042 \times 10^{-7} : 0.992459 : 6.12504 \times 10^{-6} :$   
 $0.000649969 : 5.1042 \times 10^{-7} : 6.12504 \times 10^{-7} : 0.00688332$

$\text{norm}(\{5, 9721986, 60, 6367, 5, 6, 67428\}, p)$

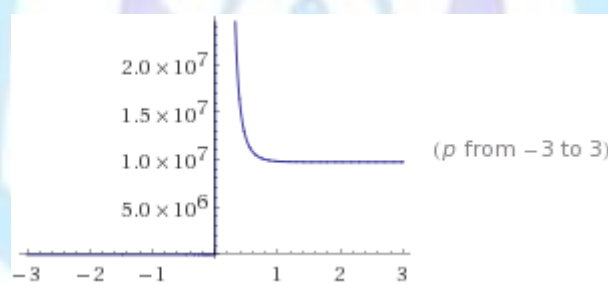
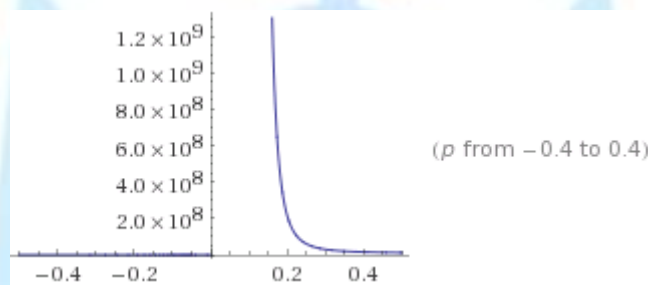
Input:

$\| \{5, 9 721 986, 60, 6367, 5, 6, 67 428\} \|_p$

Result:

$$(2 \times 5^p + 6^p + 60^p + 6367^p + 67 428^p + 9 721 986^p)^{\frac{1}{p}}$$

Plots:



Alternate form:

$$(2 \times 5^p + 6^p + 60^p + 6^2 \cdot 1873^p + 6367^p + 9 721 986^p)^{\frac{1}{p}}$$

Alternate form assuming p is real:

$$((2 \times 5^p + 6^p + 60^p + 6367^p + 67 428^p + 9 721 986^p)^2)^{\frac{1}{2p}}$$

The force of gravity acting on a variety of masses over a range of distances. These examples represent concrete evidence that there is indeed gravitationally language for the description of which can be used systems theory and cybernetics.

## Gravitational field

"The gravitational field is a potential vector field that for each point is defined as the force of gravity on the spot the body at that point divided by the mass of the body. Gravitational field around the mass  $m_1$  is given to:

$$\mathbf{g}(\mathbf{r}) = \frac{\mathbf{F}_g}{m_2} = G \frac{m_1}{r^3} \mathbf{r}$$

This size says that force per unit gravitational field attracts the body at some point in a given area Position vector  $r$  Unit is newton per kilogram (N / kg), and can easily be shown that the newton per kilogram same as meter per second squared (m/s<sup>2</sup>), which is a unit of acceleration. Gravitational acceleration of the Earth at an average of 9.80665 m/s<sup>2</sup> at the surface Zemlje. Therefore, the strength of the gravitational field at some point in space is equal to the gravitational acceleration at





that point. This is due to the fact that they are heavy and sluggish mass linearly proportional. This fact is called the principle of equivalence.”<sup>1</sup>

1) Taken from Wikipedia ([https://hr.wikipedia.org/wiki/Gravitacija#Gravitacijsko\\_polje](https://hr.wikipedia.org/wiki/Gravitacija#Gravitacijsko_polje)).

Gravitational acceleration

139		931
↘		↙
Gravitational acceleration of the Earth		
↓		
9,80665 m/s <sup>2</sup>		

$$\text{norm}(\text{ListCorrelate}(\{139, 931\}, \{9,80665\}^{\wedge}\text{conjugate}, \{1\}), p)$$

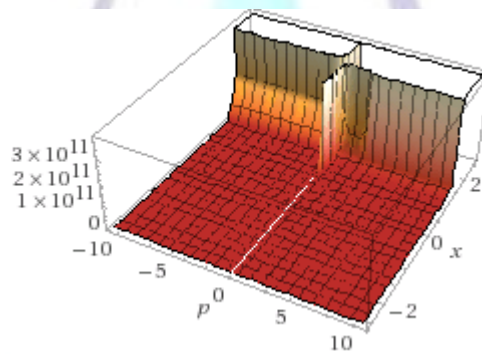
Input:

$$\| \text{ListCorrelate}[\{139, 931\}, \{9, 80\ 665\}^x, \{1\}] \|_p$$

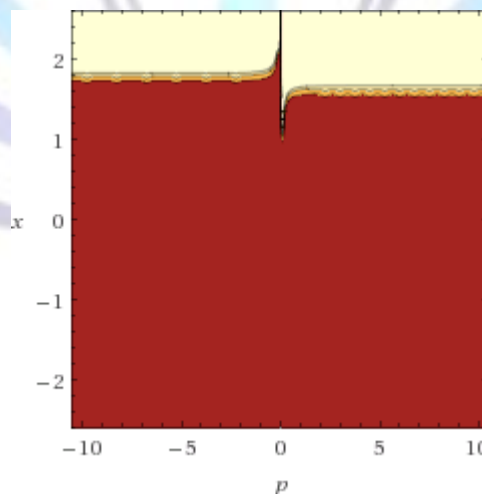
Result:

$$\left( |931 \times 9^{x^2} + 139 \times 80\ 665^{x^2}|^p + |139 \times 9^{x^2} + 931 \times 80\ 665^{x^2}|^p \right)^{\frac{1}{p}}$$

3D plot:



Contour plot:



Alternate form assuming p and x are positive:

$$\left( (931 \times 9^x + 139 \times 80\ 665^x)^p + (139 \times 9^x + 931 \times 80\ 665^x)^p \right)^{\frac{1}{p}}$$

Alternate form assuming p and x are real:

$$\left( ((931 \times 9^x + 139 \times 80\ 665^x)^2)^{p/2} + ((139 \times 9^x + 931 \times 80\ 665^x)^2)^{p/2} \right)^{\frac{1}{p}}$$



Normalize[ListCorrelate[{139, 931}, {9, 80665}^x^conjugate], {1}], p

Input:

Normalize[ListCorrelate[{139, 931}, {9, 80665}^x^x, {1}], p]

Result:

$$\left\{ \frac{139 \times 9^{x^x} + 931 \times 80665^{x^x}}{p \left( \{139 \times 9^{x^x} + 931 \times 80665^{x^x}, 931 \times 9^{x^x} + 139 \times 80665^{x^x}\} \right)}, \frac{931 \times 9^{x^x} + 139 \times 80665^{x^x}}{p \left( \{139 \times 9^{x^x} + 931 \times 80665^{x^x}, 931 \times 9^{x^x} + 139 \times 80665^{x^x}\} \right)} \right\}$$

Standardize[ListCorrelate[{139, 931}, {9, 80665}^x^Conjugate[x], {1}], p]

Input:

Standardize[ListCorrelate[{139, 931}, {9, 80665}^x^x, {1}], p]

Exact result:

$$\left\{ \left( \sqrt{2} \left( -p \left( \{139 \times 9^{x^x} + 931 \times 80665^{x^x}, 931 \times 9^{x^x} + 139 \times 80665^{x^x}\} \right) + 139 \times 9^{x^x} + 931 \times 80665^{x^x} \right) \right) / \left( \sqrt{\left( 792 \times 80665^{x^x} - 88 \times 9^{x^x} + 1 \right) \left( 792 \times 80665^{(x^x)^*} - 88 \times 9^{(x^x)^*} + 1 \right)} \right), \left( \sqrt{2} \left( -p \left( \{139 \times 9^{x^x} + 931 \times 80665^{x^x}, 931 \times 9^{x^x} + 139 \times 80665^{x^x}\} \right) + 931 \times 9^{x^x} + 139 \times 80665^{x^x} \right) \right) / \left( \sqrt{\left( 792 \times 80665^{x^x} - 88 \times 9^{x^x} + 1 \right) \left( 792 \times 80665^{(x^x)^*} - 88 \times 9^{(x^x)^*} + 1 \right)} \right) \right\}$$

Median[ListCorrelate[{139, 931}, {9, 80665}^x^Conjugate[x], {1}], p]

Input:

median	{ListCorrelate[{139, 931}, {9, 80665}^x^x, {1}], p}
--------	---

Sort[ListCorrelate[{139, 931}, {9, 80665}^x^Conjugate[x], {1}], p]

Input:

Sort[{ListCorrelate[{139, 931}, {9, 80665}^x^x, {1}], p}]

Result:

$$\{p, \{139 \times 9^{x^x} + 931 \times 80665^{x^x}, 931 \times 9^{x^x} + 139 \times 80665^{x^x}\}\}$$

UnitVector[ListCorrelate[{139, 931}, {9, 80665}^x^Conjugate[x], {1}], p]

Input:

$$\text{UnitVector}\left[\text{ListCorrelate}\left[\{139, 931\}, \{9, 80\,665\}^{x^{x^*}}, \{1\}\right], p\right]$$

Result:

$$\text{UnitVector}\left[\left\{139 \times 9^{x^{x^*}} + 931 \times 80\,665^{x^{x^*}}, 931 \times 9^{x^{x^*}} + 139 \times 80\,665^{x^{x^*}}\right\}, p\right]$$

$$\text{EuclideanDistance}(\text{ListCorrelate}(\{139, 931\}, \{9, 80665\}^{(x^{\text{conjugate}})}, \{1\}), p)$$

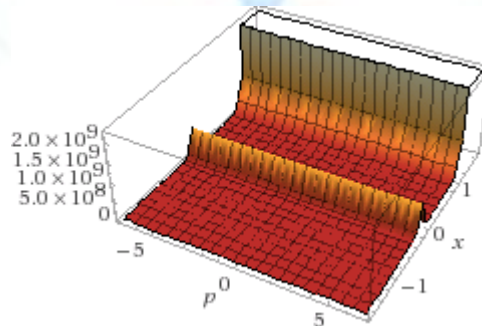
Input:

$$\text{EuclideanDistance}\left[\text{ListCorrelate}\left[\{139, 931\}, \{9, 80\,665\}^{x^{x^*}}, \{1\}\right], p\right]$$

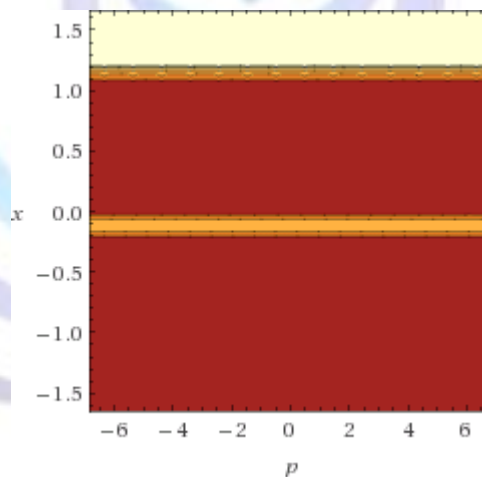
Result:

$$\sqrt{\left| -p + 931 \times 9^{x^{x^*}} + 139 \times 80\,665^{x^{x^*}} \right|^2 + \left| -p + 139 \times 9^{x^{x^*}} + 931 \times 80\,665^{x^{x^*}} \right|^2}$$

3D plot:



Contour plot:



Alternate form:

$$\sqrt{\left(\left(931 \operatorname{Im}\left(9^{x^{x^*}}\right) + 139 \operatorname{Im}\left(80\,665^{x^{x^*}}\right) - \operatorname{Im}(p)\right)^2 + \left(139 \operatorname{Im}\left(9^{x^{x^*}}\right) + 931 \operatorname{Im}\left(80\,665^{x^{x^*}}\right) - \operatorname{Im}(p)\right)^2 + \left(931 \operatorname{Re}\left(9^{x^{x^*}}\right) + 139 \operatorname{Re}\left(80\,665^{x^{x^*}}\right) - \operatorname{Re}(p)\right)^2 + \left(139 \operatorname{Re}\left(9^{x^{x^*}}\right) + 931 \operatorname{Re}\left(80\,665^{x^{x^*}}\right) - \operatorname{Re}(p)\right)^2\right)}$$



Alternate form assuming p and x are positive:

$$\sqrt{(p - 139 \times 9^{x^x} - 931 \times 80665^{x^{x^x}})^2 + (p - 931 \times 9^{x^x} - 139 \times 80665^{x^{x^x}})^2}$$

$d^2/dpdx \text{EuclideanDistance}(\text{ListCorrelate}(\{139, 931\}, \{9, 80665\}^{x^{\wedge}(x^{\wedge}\text{conjugate})), \{1\}), p)$

Derivative:

$$\begin{aligned} \frac{\partial^2}{\partial p \partial x} & \left( \text{EuclideanDistance} \left[ \text{ListCorrelate} \left[ \{139, 931\}, \{9, 80665\}^{x^{x^x}}, \{1\} \right], p \right] \right) = \\ & \left( -2 \left( 139 \times 80665^{x^{x^x}} \log(80665) \left( x^{x^x} \log(x) \left( \log(x) \text{Conjugate}'(x) + \frac{x^x}{x} \right) + x^{x^x-1} \right) x^{x^x} + \right. \right. \\ & \quad \left. \left. 931 \times 9^{x^{x^x}} \log(9) \left( x^{x^x} \log(x) \left( \log(x) \text{Conjugate}'(x) + \frac{x^x}{x} \right) + x^{x^x-1} \right) x^{x^x} \right) - 2 \left( 931 \times 80665^{x^{x^x}} \log(80665) \right. \right. \\ & \quad \left. \left. \left( x^{x^x} \log(x) \left( \log(x) \text{Conjugate}'(x) + \frac{x^x}{x} \right) + x^{x^x-1} \right) x^{x^x} + 139 \times \right. \right. \\ & \quad \left. \left. 9^{x^{x^x}} \log(9) \left( x^{x^x} \log(x) \left( \log(x) \text{Conjugate}'(x) + \frac{x^x}{x} \right) + x^{x^x-1} \right) x^{x^x} \right) \right) \left/ \left( 2 \sqrt{\left( 931 \times 9^{x^{x^x}} + 139 \times 80665^{x^{x^x}} - p \right)^2 + \left( 139 \times 9^{x^{x^x}} + 931 \times 80665^{x^{x^x}} - p \right)^2} \right) \right. \\ & - \left( -2 \left( 931 \times 9^{x^{x^x}} + 139 \times 80665^{x^{x^x}} - p \right) - 2 \left( 139 \times 9^{x^{x^x}} + 931 \times 80665^{x^{x^x}} - p \right) \right) \\ & \left( 2 \left( 931 \times 9^{x^{x^x}} + 139 \times 80665^{x^{x^x}} - p \right) \left( 139 \times 80665^{x^{x^x}} \log(80665) \right. \right. \\ & \quad \left. \left( x^{x^x} \log(x) \left( \log(x) \text{Conjugate}'(x) + \frac{x^x}{x} \right) + x^{x^x-1} \right) x^{x^x} + 931 \times 9^{x^{x^x}} \log(9) \right. \\ & \quad \left. \left( x^{x^x} \log(x) \left( \log(x) \text{Conjugate}'(x) + \frac{x^x}{x} \right) + x^{x^x-1} \right) x^{x^x} \right) + \\ & \quad \left. 2 \left( 139 \times 9^{x^{x^x}} + 931 \times 80665^{x^{x^x}} - p \right) \left( 931 \times 80665^{x^{x^x}} \log(80665) \right. \right. \\ & \quad \left. \left( x^{x^x} \log(x) \left( \log(x) \text{Conjugate}'(x) + \frac{x^x}{x} \right) + x^{x^x-1} \right) x^{x^x} + 139 \times 9^{x^{x^x}} \log(9) \right. \\ & \quad \left. \left( x^{x^x} \log(x) \left( \log(x) \text{Conjugate}'(x) + \frac{x^x}{x} \right) + x^{x^x-1} \right) x^{x^x} \right) \right) \left/ \left( 4 \left( \left( 931 \times 9^{x^{x^x}} + 139 \times 80665^{x^{x^x}} - p \right)^2 + \left( 139 \times 9^{x^{x^x}} + 931 \times 80665^{x^{x^x}} - p \right)^2 \right)^{3/2} \right) \right) \end{aligned}$$

series of  $\text{EuclideanDistance}(\text{ListCorrelate}(\{139, 931\}, \{9, 80665\}^{x^{\wedge}(x^{\wedge}(x^{\wedge}\text{conjugate}))), \{1\}), p)$  wrt x



Input interpretation:

series	EuclideanDistance[ ListCorrelate[{139, 931}, {9, 80 665} <sup>x<sup>x</sup></sup> , {1}], p]	point	x = 0
--------	---	-------	-------

etc.

From these examples, it is clear that there really is a need to use cybernetic information science approach to the study secrets of gravity. There is a need for an information-cybernetic interpretation of scientific facts and study the secrets of the gravitational field. It is obvious that science has to make extra effort to find adequate scientific language to interpret the force of gravity and gravitational fields, as well as for the interpretation of phenomena and results in this area. That's why we are in this book deal with just this type of research, and we try to find the appropriate scientific language to describe these phenomena.

### Variable gravitational acceleration

The algorithm consists of gravitational acceleration acceleration variables. These variables are, in fact, the formula of systems theory and cybernetics. These formulas determine how they will function in nature gravity. Here are some examples:

Acceleration variable 1.

(A1 x 139)		(A2 x 931)
↘		↙
	Gravitational acceleration of the Earth	
	↓	
	9,80665 m/s <sup>2</sup>	

Solution:

$$A1 = 0,00364; A2 = 0,00999;$$

$$(A1 \times 139) = (0,00364 \times 139) = 0,50596;$$

$$(A2 \times 931) = (0,00999 \times 931) = 9,30069;$$

### Systems theory and cybernetics in acceleration variable 1.

#### Example 1.

Table(ListCorrelate({0,00364, 0,00999, 139, 931}, {9,80665}<sup>(x<sup>x</sup>conjugate)</sup>, {1}))

Input:

$$\text{ListCorrelate}[\{0, 364, 0, 999, 139, 931\}, \{9, 80\ 665\}^{x^x}, \{1\}]$$

Result:

$$\{139 \times 9^{x^x} + 28 \times 13^{x^x+1} 6205^{x^x} + 386 \times 5^{x^x+1} 16\ 133^{x^x}, \\ 37 \times 3^{2x^x+3} + 1295 \times 9^{x^x} + 139 \times 80\ 665^{x^x}\}$$

#### Example 2.

Table(ListCorrelate({0,00364, 0,00999}, {139, 931}<sup>(x<sup>x</sup>conjugate)</sup>, {1}))

Input:

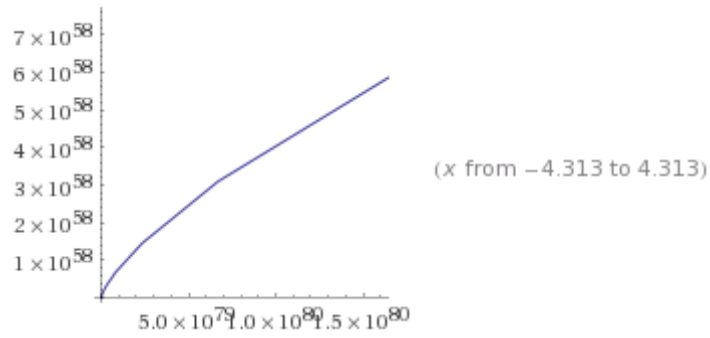
$$\text{ListCorrelate}[\{0, 364, 0, 999\}, \{139, 931\}^{x^x}, \{1\}]$$

Result:

$$\{52 \times 7^{2x^x+1} 19^{x^x} + 999 \times 931^{x^x}, 1363 \times 139^{x^x}\}$$



Parametric plot:



Example 3.

(A1 x 139)		(A2 x 931)
↓		↓
0,50596		9,30069
↘		↙
Gravitational acceleration of the Earth		
↓		
9,80665 m/s <sup>2</sup>		

$(A1 \times 139) = (0,00364 \times 139) = 0,50596;$

$(A2 \times 931) = (0,00999 \times 931) = 9,30069;$

$(0,50596 + 9,30069) = 9,80665;$

↓

9,80665 m/s<sup>2</sup>

Acceleration variable 2.

$980665 = ( 139 * 1295 ) + ( 931 * 860 )$

(B1 x 139)		(B2 x 931)
↘		↙
Gravitational acceleration of the Earth		
↓		
9,80665 m/s <sup>2</sup>		

Solution:

$B1 = 0,01295; B2 = 0,00860;$

$(B1 \times 139) = (0,01295 \times 139) = 1,80005;$

$(B2 \times 931) = (0,00860 \times 931) = 8,0066;$

(B1 x 139)		(B2 x 931)
↓		↓
1,80005		8,0066
↘		↙
Gravitational acceleration of the Earth		
↓		
9,80665 m/s <sup>2</sup>		





Acceleration variable 3.

$$980665 = (139 * 2226) + (931 * 721)$$

(C1 x 139)		(C2 x 931)
↘		↙
	Gravitational acceleration of the Earth	
	↓	
	9,80665 m/s <sup>2</sup>	

Solution:

$$C1 = 0,02226; C2 = 0,00721;$$

$$(C1 * 139) = (0,01295 * 139) = 3,09414;$$

$$(C2 * 931) = (0,00721 * 931) = 6,71251;$$

(C1 x 139)		(C2 x 931)
↓		↓
3,09414		6,71251
↘		↙
	Gravitational acceleration of the Earth	
	↓	
	9,80665 m/s <sup>2</sup>	

Acceleration variable 4.

(D1 x 139)		(D2 x 931)
↘		↙
	Gravitational acceleration of the Earth	
	↓	
	9,80665 m/s <sup>2</sup>	

Solution:

$$D1 = 0,03157; D2 = 0,00582;$$

$$(D1 * 139) = (0,03157 * 139) = 4,38823;$$

$$(D2 * 931) = (0,00582 * 931) = 5,41842;$$

(D1 x 139)		(D2 x 931)
↓		↓
4,38823		5,41842
↘		↙
	Gravitational acceleration of the Earth	
	↓	
	9,80665 m/s <sup>2</sup>	

Acceleration variable 5.

$$980665 = (139 * 4088) + (931 * 443)$$

(E1 x 139)		(E2 x 931)
↘		↙
	Gravitational acceleration of the Earth	
	↓	
	9,80665 m/s <sup>2</sup>	



Solution:

$$E1 = 0,04088; E2 = 0,00443;$$

$$(E1 \times 139) = (0,04088 \times 139) = 5,68232;$$

$$(E2 \times 931) = (0,00443 \times 931) = 4,12433;$$

(E1 x 139)		(E2 x 931)
↓		↓
5,68232		4,12433
↘		↙
Gravitational acceleration of the Earth		
↓		
9,80665 m/s <sup>2</sup>		

Acceleration variable 6.

(F1 x 139)		(F2 x 931)
↘		↙
Gravitational acceleration of the Earth		
↓		
9,80665 m/s <sup>2</sup>		

Solution:

$$F1 = 0,05019; F2 = 0,00304;$$

$$(F1 \times 139) = (0,05019 \times 139) = 6,97641;$$

$$(F2 \times 931) = (0,00304 \times 931) = 2,83024;$$

(F1 x 139)		(F2 x 931)
↓		↓
6,97641		2,83024
↘		↙
Gravitational acceleration of the Earth		
↓		
9,80665 m/s <sup>2</sup>		

etc.

In the example given above example, the subject of our research is the cybernetic-information approach to the study of empirical physical constants in which, among other things, included a budget of gravitational attraction between bodies with mass, as well as Newton's law of universal gravitation and Einstein's theory of general relativity.

### Gravitation calculation

To calculate the gravity uses primary and secondary mass, and distance. In doing so, we will look for an answer to the question of whether the matrix function mechanism operates under the laws of gravity, the general theory of information and systems theory and it's kind of relevance to the work force of gravitational attraction.

- primary mass:  =
- secondary mass:  =
- distance:  =

Input values:



primary mass	Earth (planet): $5.9721986 \times 10^{24}$ kg (kilograms)
secondary mass	60 kg (kilograms)
distance	Earth (planet): 6367.5 km (kilometers)

Primary mass 1.

(A1 x 139)		(A2 x 931)
↘		↙
	EARTH	
	↓	
	5,9721986 x 1024 kg	

Solution:

$$A1 = 0,0000698; A2 = 0,0064044;$$

$$(A1 \times 139) = (0,0000698 \times 139) = 0,0097022;$$

$$(A2 \times 931) = (0,0064044 \times 931) = 5,9624964;$$

(A1 x 139)		(A2 x 931)
↓		↓
0,0097022		5,9624964
↘		↙
	EARTH	
	↓	
	5,9721986 x 1024 kg	

$$59721986 = (139 * 1629) + (931 * 63905)$$

Primary mass 2.

(B1 x 139)		(B2 x 931)
↘		↙
	EARTH	
	↓	
	5,9721986 x 1024 kg	

Solution:

$$A1 = 0,0001629; A2 = 0,0063905;$$

(B1 x 139)		(B2 x 931)
↓		↓
0,0226431		5,9495555
↘		↙
	EARTH	
	↓	
	5,9721986 x 1024 kg	

$$59721986 = (139 * 2560) + (931 * 63766)$$



Primary mass 3.

(C1 x 139)		(C2 x 931)
↘		↙
	EARTH	
	↓	
	5,9721986 x 1024 kg	

Solution:

$$C1 = 0,0002560; C2 = 0,0063766;$$

(C1 x 139)		(C2 x 931)
↓		↓
0,035584		5,9366146
↘		↙
	EARTH	
	↓	
	5,9721986 x 1024 kg	

etc.

In this example, we have listed the evidence that does exist gravitational language for the description of which can be used systems theory and cybernetics.

Distance Earth (planet)

distance:  =

(A1 x 139)		(A2 x 931)
↓		↓
0,035584		5,9366146
↘		↙
	EARTH	
	↓	
	6.367,5 km	

Solution:

$$A1 = 0,0438; A2 = 0,0003;$$

$$(A1 \times 139) = (0,0438 \times 139) = 6,0882;$$

$$(A2 \times 931) = (0,0003 \times 931) = 0,2793;$$

$$(6,0882 + 0,2793) = 6.367,5 \text{ km}$$

And in this case manifested cybernetic, information and system characteristics Distance Earth (planet).

## Conclusion

The results of our research show that the processes of sequencing the molecules are From the above evidence, in our opinion, clearly shows that gravity does not manifest only as an attractive force between all bodies that have mass. The same is primarily manifested as a very complex program cyberspace and information system in which they operate to force whose description can be used systems theory and cybernetics, and that functioning with the help of specific laws. These forces systems theory and cybernetics in nature operate as an attractive force between all bodies that have mass. Determine the intensity of the same attraction, determine the gravitational constant G, determine the functioning of gravity, its correlation with the speed of light, etc. It is realistic to assume that in nature there is the periodic law and the periodic table of gravity and the speed of light. Our research confirms that the cybernetic-information parameters attractive force exhibited significantly more pronounced than classical. Confirm that there is indeed gravitationally language for the description of which can be used systems theory and cybernetics, and who works with special natural laws. It is expected that this research will enable the rapid development of science, especially theoretical physics and chemistry.



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**Wolfram web resource**

