Numbers are not questionable.

THE SOUND OF THE UNIVERSE *Leonardo RUBINO.*

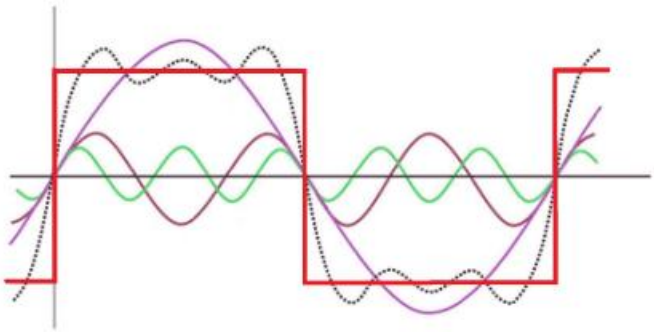
The Universe is a sound and it's frequency is $f_{Univ} = 4{,}047 \cdot 10^{-21} Hz$

Abstract: the Universe is a sound of a given frequency.

Proof:

A sound is a wave. Wave means frequency. The music from a whole orchestra is a wave; this wave can be displayed on an oscilloscope by displaying the signal at a loudspeaker while speaking the music from that orchestra.

According to Fourier, even a music from an orchestra can be developed in series of single and simple waves ("cos" and "sin"):



A simple sound s is: $s = a_k \cos kx = a_k \cos k2pft$ or $s = b_k \sin kx = b_k \sin k2pft$, if you like.
"f " is the frequency.

General Fourier series:

$$f(x) = \frac{1}{2}a_0 + \sum_{k=1}^{\infty}[a_k \cos kx + b_k \sin kx] \text{ , where } a_k = \frac{1}{p}\int_{-p}^{+p} f(x)\cos kx \cdot dx \text{ and } b_k = \frac{1}{p}\int_{-p}^{+p} f(x)\sin kx \cdot dx$$

and for a square wave (as per the example in the above figure):

$$f(x) = \frac{4}{p}\sum_{k=0}^{\infty}\frac{\sin[(2k+1)x]}{(2k+1)}$$

and $f(x)$ is the generic music from an orchestra.

How to choose the frequency of the Universe:

we know that $a = \frac{1}{137} = \frac{\frac{1}{4pe_0}\frac{e^2}{r_e}}{\frac{h}{2pr_e}c} = \frac{\frac{1}{4pe_0}e^2}{\frac{h}{2p}c}$ is the Fine Structure Constant. It is a ratio between a Coulombian energy and a Planckian energy.

Let's look for another expression for the Fine Structure Constant based on a ratio between a Newtonian energy $\frac{Gm^2}{r}$ and a Planckian energy hf :

$$a = \frac{1}{137} = \frac{\frac{Gm^2}{r}}{hf}$$

By spontaneously choosing the mass m_e and the classic radius r_e of the electron/positron harmonics:

($m_e = 9{,}1 \cdot 10^{-31} kg$ and $r_e = \frac{1}{4pe_0}\frac{e^2}{m_e \cdot c^2} \cong 2{,}8179 \cdot 10^{-15} m$)

$$a = \frac{1}{137} = \frac{\frac{Gm_e^2}{r_e}}{hf_{Univ}}$$

then f_{Univ} must be: $f_{Univ} = 4{,}047 \cdot 10^{-21} Hz$ indeed. Try and see.

Does such a frequency value make any sense?

Let's see:

1) We immediately realize that $h = 2m_e c^2 f_{Univ} = 6{,}625 \cdot 10^{-34}$ [W] (coincidence just numerical, not dimensional) is exactly the value of the Planck's Constant; very very sharply!!!

2) We know from physics that the period is the inverse of the frequency: $T_{Univ} = \frac{1}{f_{Univ}} = 2{,}47118 \cdot 10^{20} s$

Moreover, we know that the period is also given by the ratio between circumference and speed:

$T_{Univ} = \frac{2pR_{Univ}}{c} = 2{,}47118 \cdot 10^{20} s$, so $R_{Univ} = \frac{cT_{Univ}}{2p} = 1{,}17908 \cdot 10^{28} m$

We also know from physics that $a = \frac{v^2}{r}$, from which: $a_{Univ} = \frac{c^2}{R_{Univ}} = 7{,}62 \cdot 10^{-12} m/s^2$.

From the Newton's Universal Gravitation Law, we know that $a = G \cdot M / r^2$, from which:

$$M_{Univ} = \frac{a_{Univ} R_{Univ}^2}{G} = 1{,}59486 \cdot 10^{55} kg$$

where M_{Univ}, R_{Univ} and T_{Univ} have just come out from the frequency of the Universe f_{Univ}!

Now, let's introduce the well known Stefan-Boltzmann Law: $\frac{P_{[W]}}{4pR^2} = sT^4$ [W/m^2], where

$s = 5{,}67 \cdot 10^{-8} W / m^2 K^4$ is the Stefan-Boltzmann's constant.

From the above Stefan-Boltzmann Law we get T (a temperature):

$T = (\frac{P_{[W]}}{4p\,sR^2})^{1/4}$ and we know from physics that the power is: $P_{Univ} = E_{Univ}/T_{Univ} = M_{Univ}c^2/T_{Univ}$, from which:

$$T = (\frac{P_{[W]}}{4p\,sR^2})^{1/4} = (\frac{\frac{M_{Univ}c^2}{T_{Univ}}}{4p\,sR_{Univ}^2})^{1/4} = T_{CMBR} = 2{,}73K$$

which is incidentally the Cosmic Microwave Background Radiation CMBR temperature: $T_{CMBR} \cong 2{,}73K$!!!!!!
(Get a calculator and check the calculations above reported, if you don't trust me!)

3) In a classic sense, if we imagine, for instance, to figure out the gravitational acceleration on an electron, as if it were a small planet, we must easily conclude that:

$m_x \cdot g_e = G\frac{m_x \cdot m_e}{r_e^2}$, from which:

$$g_e = G\frac{m_e}{r_e^2} = 16p^2e_0^2\frac{Gm_e^3c^4}{e^4} = a_{Univ} = 7{,}62 \cdot 10^{-12}\, m/s^2$$

(again and sharply the a_{Univ} we obtained before from f_{Univ} !!!)

At last, we have to admit that waves have a lot to do with the Universe. A photon is a wave (also), through the D'Alembert equation:

$$\frac{\partial^2\Psi}{\partial t^2} = v^2\frac{\partial^2\Psi}{\partial x^2} \qquad \left(\ \Psi(\mathbf{i}\cdot\mathbf{r}\, k\cdot x - wt)\ \right)$$

and matter is wave, somehow, through the Schrodinger equation:

$$\frac{\partial\Psi}{\partial t} = \frac{i\mathbf{h}}{2m}\frac{\partial^2\Psi}{\partial x^2} \qquad \left(\ \Psi(\mathbf{i}\cdot\mathbf{r}\, k\cdot x - wt)\ \right)$$

Moreover, a particle and an antiparticle, by annihilation, generate photons, so waves, and, on the contrary, we can have particles starting from photons.
All is wave; all is music, somehow.
In order to better know what is behind all this, please see the file at the following link:

http://vixra.org/abs/1205.0058

Thank you for your attention.
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Physical Constants.

Boltzmann's Constant k: $1{,}38 \cdot 10^{-23}\, J/K$

Cosmic Acceleration a_{Univ}: $7{,}62 \cdot 10^{-12}\, m/s^2$

Charge of the electron e: $-1{,}6 \cdot 10^{-19}\, C$

Classic radius of the electron r_e: $2{,}818 \cdot 10^{-15}\, m$

Mass of the electron m_e: $9{,}1 \cdot 10^{-31}\, kg$

Finestructure Constant $a\,(\cong 1/137)$: $7{,}30 \cdot 10^{-3}$

Frequency of the Universe n_0 : $4{,}05 \cdot 10^{-21}\, Hz$

Pulsation of the Universe w_0 : $2{,}54 \cdot 10^{-20}\, rad/s$

Universal Gravitational Constant G: $6{,}67 \cdot 10^{-11}\, Nm^2/kg^2$

Period of the Universe T_{Univ} : $2{,}47 \cdot 10^{20}\, s$

Light Year l.y.: $9{,}46 \cdot 10^{15}\, m$

Parsec pc: $3{,}26\_a.l. = 3{,}08 \cdot 10^{16}\, m$

Density of the Universe ρ_{Univ}: $2{,}32 \cdot 10^{-30}\, kg/m^3$

Microwave Cosmic Radiation Background Temp. T: $2{,}73K$

Magnetic Permeability of vacuum μ_0: $1{,}26 \cdot 10^{-6}\, H/m$

Electric Permittivity of vacuum ε_0: $8{,}85 \cdot 10^{-12}\, F/m$

Planck's Constant h: $6{,}625 \cdot 10^{-34}\, J \cdot s$

Mass of the proton m_p: $1{,}67 \cdot 10^{-27}\, kg$

Mass of the Sun M_{Sun}: $1{,}989 \cdot 10^{30}\, kg$

Radius of the Sun R_{Sun}: $6{,}96 \cdot 10^{8}\, m$

Speed of light in vacuum c: $2{,}99792458 \cdot 10^{8}\, m/s$

Stefan-Boltzmann's Constant σ: $5{,}67 \cdot 10^{-8}\, W/m^2K^4$

Radius of the Universe (from the centre to us) R_{Univ}: $1{,}18 \cdot 10^{28}\, m$

Mass of the Universe (within R_{Univ}) M_{Univ}: $1{,}59 \cdot 10^{55}\, kg$