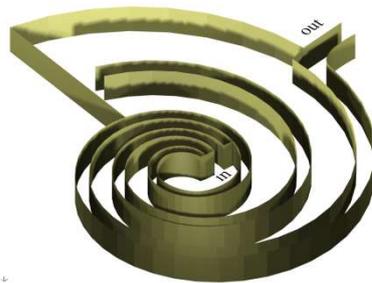


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EX SPIRA AQUA MUNDA
In memory of my son Giovanni

23-March-2020



To my wife FRANCESCA

and my daughter AMANDA

Thesis:

How to obtain, over Earth surface, the absolute temperature in Kelvin degrees [$^{\circ}K$], from the dissipation of Heat reaching us from Sun in association with the dissipation coming out of Earth as a Star, using the “Universal Formula of dissipation of Ruggeri”.

Calculation of Absolute temperature on Earth Surface at STP, deducted from the dissipation, Solar Output [SO] reaching it, to which was added the constant Dissipation coming out of Earth (Earth Output [EO]).

With this paper for the first time in History of Science is shown how to **calculate directly the Temperature on Earth Surface, through an “exact Formula”, which adds to the dissipation $\left[\frac{kJ}{m^2m \cdot 1''}\right]$ reaching Earth Surface from the Sun that coming out of Earth Surface as Star.**

To get the true absolute Temperature on Earth surface we must consider, as well, that Earth on its own, also produces dissipation and the constant value it outputs, although small, needs to be mentioned.

Both values of dissipation mentioned above have their own character, that coming out from Sun is the largest source of Energy from which Earth completely depends and is read as Solar Constant [SC] only a midday at Equator where its value is compounded with the Earth Constant [EC] (always uniformly present over the whole Earth surface).

From Ruggeri's formula giving the dissipation coming out of Sun we get the value of Absolute temperature over the unit of volume of Space Fabric: $\{[SF]_U = 1[m^3]\}$ containing Water in status of saturated Gas, at distance from Sun

$$R_{Sun-Earth} = 150e^9[m].$$

Note: we consider the dissipation reaching the $[SF]_U$ vertically at midday.

This paper has the additional purpose to prove that in Science, all what is needed, is use of "relations between physical constants always under the guise of "perfect numbers" che which I named "God Costants or God's Numbers",

(see paper "Universal numbers and variables of God").

Said physical constants "coming together" (formulated) through theoretic approach with physical attributes of Space, substance

inside it, entropic transformation/degradation subjected to measurement through use of units of reference (length 1[m], mass 1[Ton], time 1"), which must be considered of Perfect Divine Nature (chosen by God).

In the Universal Reality from Earth Surface, comes out by "entropic degradation", internal gravitational production of Heat ("Earth Output [EO]").

The value of this internal production of Heat [EO] can be obtained through use of the "Ruggeri's Universal formula of dissipation".

Earth as Star

Determination of the dissipation [EO] coming out of Earth surface.

$$\text{for } R_{Earth} = 6366198[m] \quad \text{and} \quad \rho_{Earth} = 5.514 \left[\frac{Ton}{m^3} \right]$$

Through my theory considering existence of substance [Ether/ESF] in the Universal Reality, from Newton's Formula I developed the Universal formula of absorption Earth INPUT [EI] and the Ruggeri's Universal formula of Dissipation, giving Earth OUTPUT of substance (EO) coming out from Earth surface.

Absorption by mass $M(\rho, R)$ of [Ether/ESF] during the Universal unit of time (1") is generating the Universal fields of depression and flow in the [Ether/ESF], coexisting inside it and present ad infinitum outside it.

The entropic Universal degradation transforming into mass the [Ether/ESF] inside the unit of volume $1[m^3]$ is expressed as

equivalent units of mass $[kJ]$ during the unit of time and given in $\left[\frac{kJ}{m^3 \cdot 1''}\right]$ therefore is:

$$\text{GRAV. INPUT (kJ)} \quad k = 8.3775 \cdot e^{-7} \left[\frac{kJ}{m^3 \cdot 1''}\right]$$

$$\text{GRAV. INPUT (Ton)} \quad \frac{k}{c^2} = \frac{8.3775 \cdot e^{-7}}{c^2} \left[\frac{\text{Ton}}{m^3 \cdot 1''}\right]$$

it takes place over the unit of Universal time as absorption of composite particles $[BM]$ of $[Ether/ESF]$ each of mass:

$$[BM] = \frac{\{[SF]_{U=1}[m^3]\}}{c^3 \cdot e^6} = \frac{1}{(3e^{10})^3} [\text{Ton}]$$

which having density $\rho = \rho_W = 1 \left[\frac{\text{Ton}}{m^3}\right]$ are occupying a volume of $[SF]_{BM} = \frac{[BM]}{\rho_W} = \frac{1}{(3e^{10})^3} [m^3]$

Note: each unit of volume of mass $[\text{Ton}]$ contained at density $\rho_W = 1 \left[\frac{\text{Ton}}{m^3}\right]$ is then absorbing over unit of time an amount of composite particles $[BM]$:

$$\sim \frac{k}{c^2} \cdot (3e^{10})^3 = 2.513 \dots e^8 \frac{[BM]}{1'' \text{Ton}}$$

We then have an equivalent way to refer to a value of gravitational absorption or Mass Input $[MI]$ for a generic mass $M(\rho, R)$ from the $[Ether/ESF]$ in Universal terms through particles $[BM]$ of density $\rho = \rho_W = 1 \left[\frac{\text{Ton}}{m^3}\right]$ over the unit of time which will permit us to delve deeper inside the molecular structures of the masses.

Mass Input by a gravitational mass $[MI]$:

$$[MI] = \frac{k}{c^2} M(\rho, R) = \frac{8.3775 e^{-7}}{c^2} M(\rho, R) \left[\frac{\text{Ton}}{1''}\right]$$

With Earth $M_{Earth} = 5.96e^{21} [Ton]$ the Mass increase $[EI]$ over the Universal time $t=1''$ due to absorption of $[Ether/ESF]$ results to be:

$$EI = \frac{8.3775 e^{-7}}{c^2} M_{Eart} = 0.055478 \left[\frac{Ton}{1''} \right]$$

Note: using the Ruggeri Universal dissipation Formula that considers dissipation (flow in units of equivalent mass in $\left[\frac{kJ}{1''} \right]$) coming out of Earth $M(\rho, R)$ proceeding radially away under entropic degradation or absorption by the phase $[ESF]$ of the $[Ether/ESF]$ during the unit of time we have:

$$(EO) = \left(\frac{k}{3} \rho R \right) \cdot \frac{\left(\frac{k}{3} \rho R^2 \right)}{2 \cdot c^2} \cdot M(\rho, R) = 2,022e^{13} \left[\frac{kJ}{1''} \right]$$

Which divided by Earth Surface gives:

Earth constant $[EC]$

$$[EC] = \frac{[EO]}{4\pi R^2} = \frac{2.02..e^{13}}{4\pi \cdot 6366200^2} = 0.0397 \left[\frac{kJ}{m^2 \cdot m \cdot 1''} \right]$$

which is to be intended as the value of dissipation :

$$\text{“Earth Constant”} \equiv [EC] = 0.0397.. \left[\frac{kJ}{m^2 \cdot m \cdot 1''} \right]$$

Is present over “Earth Surface” as value of continuous flow of substance which inside Earth is moving at radial speed

$v_R = 1 \left[\frac{m}{1''} \right]$ maintaining simultaneously, to the outflow, a continuous, constant, presence of the same value

$0.0397.. \left[\frac{kJ}{m^3} \right]$ (inside the cubic meter) at STP which can

also be intended as “degrees in [$^{\circ}kJ$] “ and precisely in this case

$$[EC] = 0.0397.. \left[\frac{kJ}{m^2 \cdot m \cdot 1''} \right] \equiv \left[\frac{kJ}{m^3} \right] [^{\circ}kJ].$$

The above $[EC]$ with the use of the gas Formula of status, corresponds to a uniform temperature in Kelvin degrees over Earth Surface, as shown below:

for Water as ice under vacuum therefore surrounded by water in status of saturated Gas, at density:

$$n = \rho_{W-Gas} = \frac{1}{1118} = 0.0008944 \left[\frac{Ton}{m^3} \right]$$

given a value of Gas Constant :

$$R_{Gas} = \frac{4}{3} \pi \cdot 2 = 8.3775.. \text{ (Gas constant)}$$

$$\text{since } [EC] \left[\frac{kJ}{m^3} \right] \equiv [^{\circ}kJ] \equiv [p V]$$

Applying the equation of status for water as ideal saturated Gas we obtain an equation giving us its temperature in [$^{\circ}K$] :

$$[p V] = n \cdot R_{Gas} \cdot T[^{\circ}K]$$

$$[p V] \equiv [EC] \left[\frac{kJ}{m^3} \right] [^{\circ}kJ] = \rho_{W-Gas} \cdot R_{Gas} \cdot T[^{\circ}K]$$

Note: that dissipation $[EC]$ on Earth surface crossing it as constant Flow $[p V] = EC \left[\frac{kJ}{m^2 \cdot m \cdot 1''} \right] \equiv \left[\frac{kJ}{m^3} \right]$ (is also constant flow of Energy in $[kJ]$ that takes place permanently over 1” through di $1[m^3]$ as Water in status of saturated Gas at STP

$\left(EC \left[\frac{kJ}{m^3} \right] \equiv EC [^{\circ}kJ] \right)$ and is the condition for constant temperature which we will now express alternatively in degrees [$^{\circ}K$] Kelvin of temperature:

SURFACE EARTH TEMPERATURE DUE TO OWN GRAVITY EC in Kelvin Degrees

$$[EC] \ 0.0397 [^{\circ}kJ] \cdot \frac{1}{\rho_{W-Gas} \cdot R_{Gas}} = 5.29 [^{\circ}K]$$

To Earth Constant $[EC]$ over Earth surface corresponds a Temperature in degrees Kelvin, ($T = 5.29 [^{\circ}K]$) on Water present at density of saturated Gas. (Standard constant conditions STP as above):

As far as I know there is no trace the Official Science makes no mention of this radiation... and this can be due to the far larger incumbent dissipation coming from the Sun (which also can be determined through Ruggeri's Universal Formula of Dissipation).

Introducing in the said Universal Formula of Dissipation the Parameters of Sun (obtained from Wikipedia):

$$\rho_{Sun} = 1.41 \quad R_{Sun} = 6.968 \cdot 10^8 [m]$$

$$k = \frac{4}{3} \pi \cdot 2 \cdot 10^{-7}$$

surface gravity of Sun is:

$$\frac{k}{3} \cdot 1.41 \cdot 6.968 \cdot 10^8 = 274.36 \left[\frac{kJ}{m^3 m^1} \right]$$

The Solar Output $[SO] \equiv$ "Ruggeri Universal formula of dissipation" is:

$$1) \quad (SO) = \left(\frac{k}{3} \rho R \right) \cdot \frac{\left(\frac{k}{3} \rho R^2 \right)}{2 \cdot c^2} \cdot M(\rho, R) = 5.828 \cdot 10^{23} \left[\frac{kJ}{1} \right]$$

from Sun unit of surface would be:

$$\frac{Solar-OUTPUT}{Sun-Surface} = \frac{SO}{4\pi R_{Sun}^2} = \frac{5.828 \cdot 10^{23}}{4\pi \cdot (6.968 \cdot 10^8)^2} = 95517 \left[\frac{kJ}{m^2 m^1} \right] [^{\circ}kJ]$$

And the dissipation (entropic degradation of mass in status of Heat) reaching us under absorption by the phase $[E_{ESF}]$ from the Sun at a distance:

$$\overline{Sun - Earth} = D_{Sun-Earth} = 150e^9[m]$$

Calculated over the unit of surface of Earth, at midday at Equator gets the name Solar Constant [SC]:

Entropic degradation of Solar Output over the Earth Surface

$$[SC] = \frac{SO}{4\pi D_{S-E}^2} = \frac{5.828e^{23}}{4\pi \cdot (150e^9)^2} =$$

$$= 2.0612 \cdot \left[\frac{kJ}{m^2 m1''} \right] \text{ or } \left[\frac{kJ}{m^3} \right] \text{ or } [^{\circ}kJ]$$

If to the Solar Constant [SC] over Earth surface we add the Earth Constant:

$$[SC] + [EC] = 2.0612 + 0.0397 = 2.1009 [^{\circ}kJ]$$

From above, using the Gas Law:

for $n = \text{molecular density of water in saturated Gas status}$ we get the temperature in [$^{\circ}K$] over Earth surface of Water as "Saturated Gas" (see above):

$$[SC + EC] = n \cdot R_{Gas} T [^{\circ}K]$$

(which corresponds to maintain the ice without fusing it)

$$\text{for } n = 0.0008944 \quad R_{Gas} = \frac{4}{3}\pi \cdot 2 = 8.37758 \dots$$

these values inserted in the above formula give the absolute Temperature in degrees Kelvin [$^{\circ}K$] of saturated Water at density of Gas:

$$T [^{\circ}K] = \frac{[SC]}{n \cdot R_{Gas}} = \frac{2.1009}{0.0008944 \cdot 8.37758 \dots} = \mathbf{280.38 \dots [^{\circ}K]}$$

Earth Constant $[EC]$ is undeniably a value that should always be considered when setting the temperature scale on Kelvin degrees, but presently, doesn't seem to be the case.

This observation about presence of Earth as Source of gravitational dissipation deserves attention since obviously affects the readings of temperatures etc...

When we detract from the above value of temperature in $[^{\circ}K]$ the value constant of temperature due to Earth internal Gravitational activity is:

$$T_{[^{\circ}K]} = \frac{[SC] - [EC]}{n \cdot R_{Gas}} = 280.38 - 5.29 = 275.09$$

The value used which was adopted without taking into account the constant dissipation coming out of Earth as a Star at midday at Equator at STP is $T=273.15$ but as we move towards the poles, since the $[EC]$ is a constant contribution to variable local temperatures, the whole concept of measure needs immediate attention.

Note: "God's numbers": (π) , the mole $=\sqrt{500}=22,360,679..$
"restricted set of natural numbers"

And "Universal constants" defining Quantities, like

$1[m], 1'', 1[Ton], k$ (*Newton's Universal Constant of absorption*),

R_{Gas}, c (*speed of light*)

\emptyset (*cosmic constant*)

. $[BM]$ Basic composite particle of $[Ether/ESF]$

$Q_{[BM]}$ Quantum as mass Space Fabric of $[BM]$

etc... are the unique entities used by necessity in the development of Physical Laws.

The conclusions of consequence are that to develop physical Laws only few God's numbers, Universal constants, mathematical operators and functions are to be used at any time, they give Equations of perfect nature "ideal" .

Quote: "no Real Gas follows exactly the "Status Equation" of an Ideal Gas (Enrico Fermi)



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