ABSTRACT
In this paper, we consider the elementary particles in the light of Astro-Theology. We see that these two branches of physics can be united using well known chemistry equations. A Pressure and a Temperature equation are derived, as well as spin and charge equations.

Keywords: Ideal Gas Law; Charles Law; Temperature Equation; Pressure Equation; Elementary particles

INTRODUCTION
Uniting Cosmology and quantum mechanics has been a goal of physicists for a century. If we consider the works in Astro-theology, Cusack’s Universe, and the elementary particles, we can see that these two systems can be combined mathematically. Here we examine Mass in terms of micro and macro physics. We use the standard Chemistry equations to see that the micro and macro can be combined into one model of the universe. We begin with the macro and move to the micro.

\[ e^\pi = 0.4321 \]
\[ \ln \pi = 1.1447 \]
\[ 1/(e^\pi - \ln \pi) = 1/2 = 0.500 \]

Now, from Chemistry, the Ideal Gas Law and Charles’s law:
\[ PV = nRT \]
\[ P_1 V_1 / T_1 = P_2 V_2 / T_2 \]
\[ PV = nR = (6.023)(8.31) = 5.005 = 1/1998 = Y \text{ (Dampened Cosine)} \]
\[ Y = e^{-t} \cos (2\pi t) \]

Let \( t = 1 \)
\[ Y = e^{-1} \cos (2\pi) = 0.3657 = 1/273.47 = 1/K \text{ (Kelvin=Temperature)} \]
Therefore
Y=1/K
E=1/K
And K=1/E=t
PV=nRT
= (6.023) (8.31) (273.47)
=0.13468
=1-0.8631
=1 - [1/115.86]

CUSACK’S PRESSURE EQUATION

PV =1-[1/M]
P=F/A
Area=πR²
Volume=4/3 π R³
Area=Volume
R=3/4=0.75=1/s
When cos t=0, t=π/2; 3π/2
2πt=3π/2
t=0.75=R=1/s
273.47 =n (0.75)
n=364.62
364.62-273.47=91.15° C ~c²
364.62/ π=116.02=Mass (Periodic Table)

CUSACK’S TEMPERATURE EQUATION

K=Mt
E=Mc²
= (116) (91.15)
=105.79
105.79/ (0.4233)³
=1394.76
=86.05=1/M

Figure 2: Cusack-hook’s law for Resistance to Mass.

For a Bottom Quark which has E=4.18 GV/c², this is Mass
4.233 J/kg /0.418 kg =1.0127 J=E
101.27 J /91.15 C=1/9.00069= (1/3) ^2=Charge^2 [=] J^2/kg
1/ c= Charge [=] J/kg
Charge =1/c= time/distance=1/ (4/3)=0.75=1/s= K=t
Figure 3: Elementary particles (Source: Wikipedia)

1/ Charge /spin = 1/(-1/3)/(1/2) = -6
Spin = Charge [60 /360 degrees]
Spin = 1/c (1/6)

Spin = 1/6c = 0.555 = 1/18
Spin = 1/18 = 0.1313 = 1 - sin 60 degrees = Moment

Charge = 1/spin = 6c = 18
Spin = 1/Charge = 6c = Moment

For a Muon Lepton Mass = 105.67 MeV/c² This is energy = Mc²
For a Z Boson Mass 91.19 GeV/c² This is Temperature above 0 degrees Celsius

Higgs Scalar Bosons
Golden mean parabola:
(125.09)² - (1.2509) - 1 = 0.686
(1.2509)² - (1.2509) - 1 = 1 + π
4.139 - 4.18 = 0.041
41 is the 14th Prime Number

Riemann Hypothesis rationalizing Prime Numbers:
Y = e^x + Ln π
= e^14 + Ln π = 1/0.8315 = 1/R (The Gas Constant [=] J/ mol. K)

Now consider the equation of the universe:
E = 1
δ = ΔL/L = 6
Charge = Ch. = 3
Et^3 - δt + Ch. = E
E(1/E)^3 - ΔL(t/L) + Ch. = E
1/E^2 - ΔL/v + Ch. = E
1/(1)^2 - 1/(1/√2) + 3 = E
1 - 1/2 + 3 = 2.5858
1/0.3867 = e^0.95
\[ e^{-1/1.0597} = e^t \]

Aside:
-0.95 = -1/1.0597
-1.0597 = E = Mc^2 = -(116)(91.15) = -MK = -1/t = -(t^{-1})

Therefore, the equation is:

CUSACK’S FINAL EQUATION

\[ E_t^3 - \delta t + Ch. = e^{(1/[MK(s^{-1})])} = e^t \]

\[ e^x = 0.4321 \text{ (April 3, 2012) } \text{ Note: 2021-4 BCE (year Christ was Born)=2017.} \]
The idol was installed on April 3, 2005 Divine Mercy Sunday.

Circumference = \( C = T^2 \)
\[ = (8\pi)^2 \]
\[ = 251.6^2 \]
\[ = 631.6 \]
\[ 631.6/(\pi - 1) = 2.949 \approx c \]

E = Mc^2
Et = c
Mc^2t = c
Mt = 1/3
Mass of Bottom

CONCLUSION
Cosmology and Quantum Mechanics are finally united in one equation.

REFERENCES