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# The Universal Vector Space and Static Equilibrium Techniques

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**Abstract**

In this paper, the author uses well know Structural Engineering theorems to solve for physical constants for the universe. The universe is in static equilibrium. Thus, these rules of statics apply to the universe. We show how the speed of light is derived to be c=2.997. In keeping with the theme of Astro-Theology, the physical universe are inseparable.

**Keywords:** Vector space; Force polygon; Static equilibrium; Speed of light

## Introduction

Yet another way to analyze the universe is through a vector space, or a force polygon wihth 8 joints, 2 reactions, and 18 memebers. This system will be considered below (Figure 1).

The Universe can be modelled as a vector space, or alternatively named a force polygon in structural mechanics. Since there are 10 unknowns in AT math, there are 8 joints in this vector space plus two reactions acting at joint 3, Energy and time. There are 18 members connecting every nod to every other node. A member from joint 1 to joint 3 and joint 3 to joint 7 lines up perfectly, which indicates a statically determinate system. These two members will be analyzed below as a structural simply supported beam, what I term, the "universal beam." The load on these beams is q, and is the resultant of the Energy-time vectors. All the members of this vector space make up the physical constants of the universe (Figure 2).

The definition of the numeral one is where the fraction meets the multiple. Every other number is either a multiple or a fraction of one. One, is therefore the tipping point. In algebraic terms, the fraction and the multiple meet at he golden mean. Therefor, t^2-t-1=0 is where Energy and time meet -at joint 3 shown in Figure 2.

LOAD:

q=f(E,t)

q=1+sin 60, refer to Figure 3.

q=t^2-t-1=E

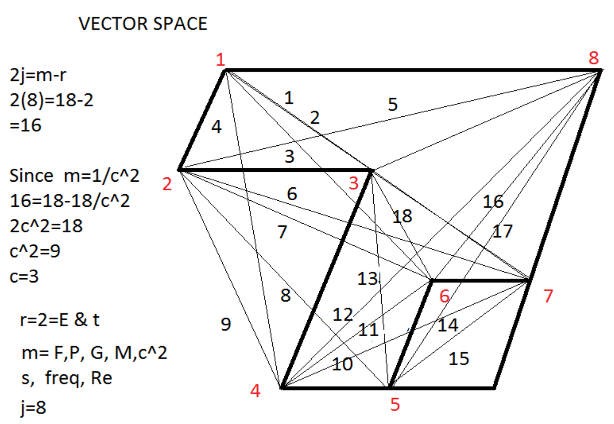


**Figure 1:** The universal vector space.

1+sin 60 = t^2-t-1=0

Roots,

t=2.2652, 1.2652=rho

t=rho when E=q

ENERGY: refer to Figure 4.

E=Mc^2

dE/dt=dM/dt c^2

1=1/t=(2)(2)(3)

1/t=12

t=1/12

## Cross Product

s=|E||t| sin t

4/3=E x (1/12)(sin 60 deg.

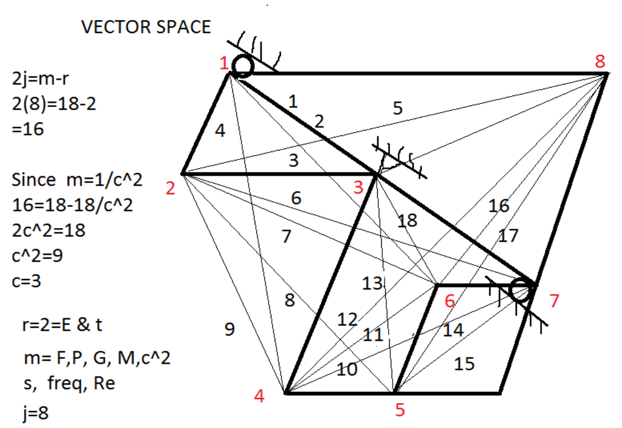


**Figure 2:** Two simply supported beams.

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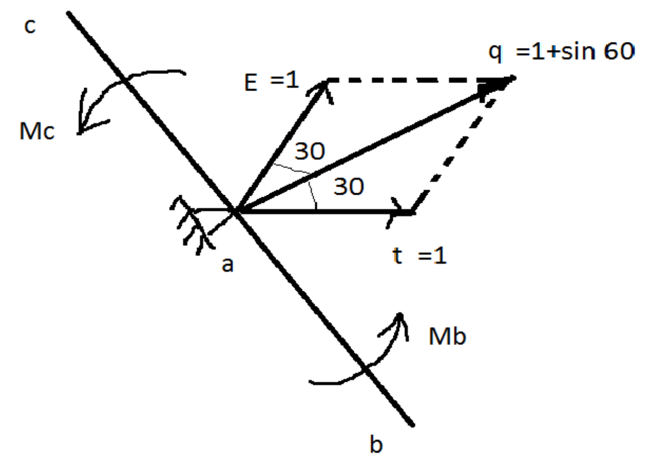


**Figure 3:** The universal load, q.

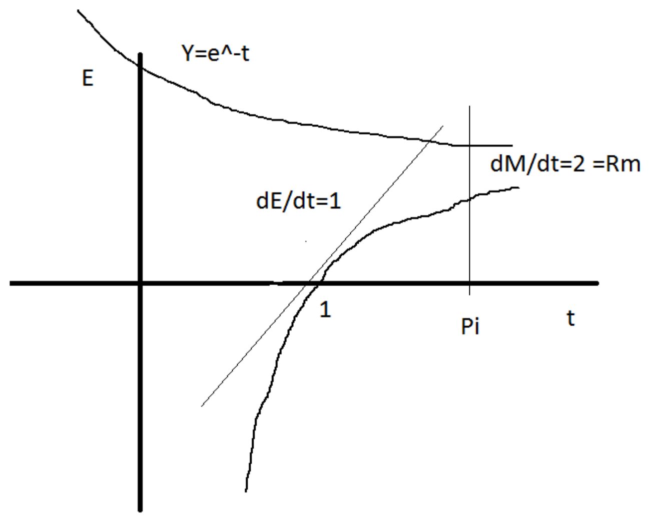


**Figure 4:** Energy time graph.

E=1.0695~1.07=Mass H+

Add an electron:

1.07+0.511=1.581~sin 1

Energy & Graivitational Acceleration

E=W x t

=F x dx t

1-sin 1=(1+sin 1)(d)(1)

[1-sin 1]/[1+sin 1]=1585/1.866=117.7 =M=d

117.7/12=9.8083=g (Figure 5).

## Static Equilibrium

Joints 1,3,7

$2^n$-1

$[(dM/dt)^n-M]/c=j_{critical}/c=Ec$

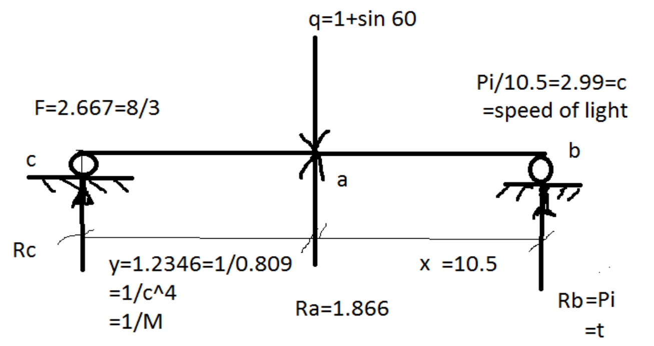


**Figure 5:** The universal beam.

When E=0

$[(y')^y-y]/c=0$

$(y')^y-y=0$

$(dE/dt)^E-E=0$

Clairnaut

$d^2E/dt^2-E=0$

So,

$(dE/dt)^E=d^2E/dt^2$

$(dy/dx)^y=d^2x^2/dt^2$

$y[\mathrm{Ln}\ (dy/dx)=\mathrm{Ln}\ (d^2y^2/dt^2)$

y(Ln 1)=y“

y(0)=Ln y”

$0=e^{\mathrm{Ln}\ y``}$

0=y”

a=0

F=Ma

F=0

$\Sigma F_x=0$ Static Equilibrium

$\Sigma F_x=0$

q cos 60° -F cos 60°=1.866 (1/2) - (2.667 (1/2)

=0.4005

=t

40% of a cycle =1 rad.

1/250=1/T=1/[1/=t (Figure 6).

f=My/I

0.0809=M (Pi)/(1/Y)

M=52

Element = Tellurian at fulcrim

ρ=126.7

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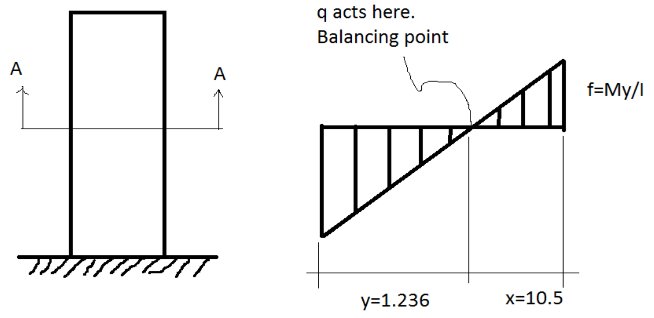


**Figure 6:** Cantilever stresses.

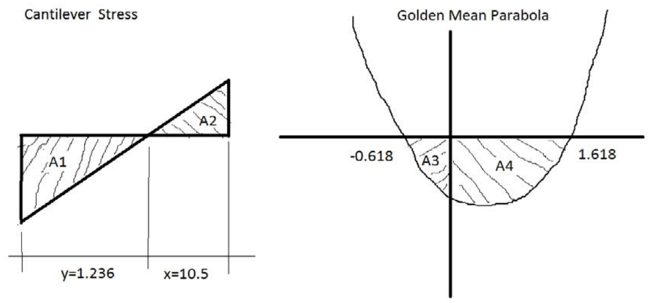


**Figure 7:** Areas under curve.

10.5/0.0809=11.72~1118 Last element in the periodic table of the elements (Figure 7).

A1=1/2 bh=1/2 (1/81)(1.236)=7.639

A2=1/2(129.5)(10.5)=679.22

Σ[A1+A2]=6.7922-7.639=0.8468

A3=$\int_{(-0.618\text{-}0)}$ $t^2$-t-1=2$t^3$/3-$^3$2/2-t=$E^2$/2

E=0

A4=∫(0-1.618)=1.618

Σ[A3+A4]=1.618

Σ[A1+A2]/{A3+A4]=

0.8468/1.618=2.998~c (Figure 8).

$d^2y/dt^2$=M/EI

dθ/dt=M/EI

1 rad=M/(0.4233)(1/Y)

Y=202

M=1/1201

1/12.01 ×360=2.9975=c

δ=∫ M/EI x dx

=Σ[A1+A2]

δ/t=δ/1.618=Σ [A1+A2]/Σ[A3 +A4]=d/t=v=c

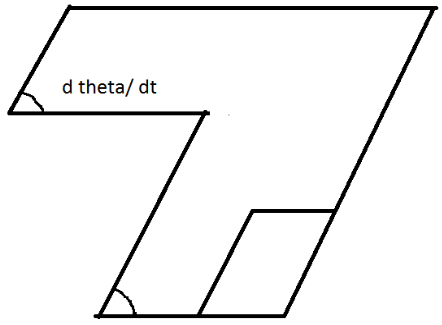


**Figure 8:** The chain link fence

## Divine Mercy Icon

E=M$c^2$

MαE/$c^2$

dM/dtαdE/dt ×1/[2c]

2α1(1/2(3))

12 α1

12 Apostles

1/12=t =Judas

And

F=t=d

Fd=1+F=1+sin 60°

Fd-F-1=0

(Sin θ)(sin θ)- F-t=0

1/s=Fd

1=Fds

t=E=Fds

t=E=F$s^2$

=F$(4/3)^2$

=F(16/9)=F √π

$s^2$=√π

$s^4$=π=I=moment of inertia=t

$s^4$=Ω = linear operator

Now, for he Great Abomination of Revelation:

y=δ

dy/dt=θ

$d^2y^2/dt^2$=dθ/dt=M/EI

$d^3y/dt^3$=dM/EI dt=V/EI

=2/[0.4233)(4/3)=345.359

April 3, 2005 @ 3:36 P.M. Date and Time Idol of the oppressor was installed at the Cathedral of the Immaculate Conception in Saint John: Divine Mercy Sunday.

EVIL=Energy (Shear)(Inertia)(Length)=(1)(2)(1/202)(1/2)=1/202=1/Y=1/E=t Time is evil (Figure 9).

## Conjugate Beam Theory

The slope (t=1.0123 rads) and the deflection (E=0) is the shear in the real beam is the shear (58) and the moment (0) in the conjugate beam [1,2].

In the Conjugate Beam, the,

Shear V= Slope θ

and

Deflection δ= Moment M

so,

$V=dM/dt=2=\sqrt{3}/\sin\theta$

$\theta=dE/dt=1$

$\delta=t=\int M/EI \times dx=1-\sin 1=Fd$ d=1682

$M=1-\sin 1=Fd=0.1585$

$E\alpha Mc^2$

Derivative:

$dE/dt= dM/dt \times 2c$

$\theta=V\times 2\times\delta$

$\theta=2\sqrt{3}/\sin\theta\times\delta$

$\theta/\delta=4.00=t=40\%$ of a cycle

$\delta=\theta/4$

$\theta=1/2\pi$

$\delta=0.1592/4=0.0398=1/251=1/T=t$

$\delta=t=y=E$

## The Universal Beam

$\int BMD=\int_{(-1\ to\ 2)} t^3-t^2-t-2$

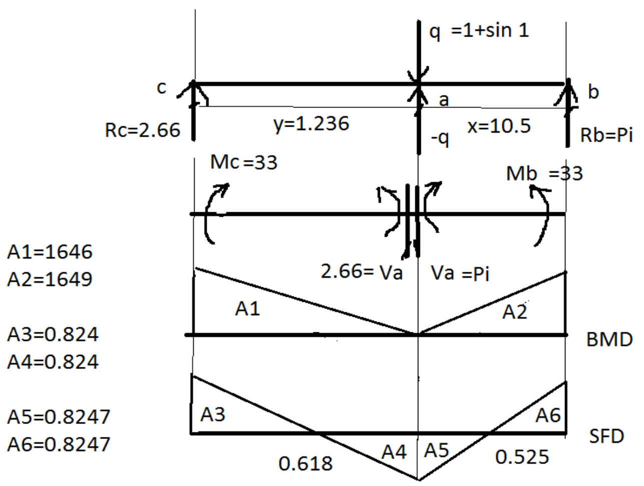


**Figure 9:** Cathedral of the immaculate conception in Saint John: Divine mercy Sunday.

=-[1.333-1]

=-0.333

=-1/c

s-t=-1/c

$[|E||t|\sin\theta]-t=-1/c$

$t[E\sin\theta-1]=-1/c$

$1[\sin\theta-1]=-0.333$

$\sin\theta=0.777$

$\theta=2.98\sim c$

$\sin\theta-1=-1/c$

$1-\sin\theta=1/c$

$\theta=0.7296$ rads

41.8°/360°=116.1=M

$1/c=E\times t$

$1/(tc)=E$

$1/c\div(1/E)=E$

E/c=t

E/c=1

E=3 (Figures 10 and 11).

## Axial load

ð=PL/AE

2t-1=w=0

2t=1

t=1/2

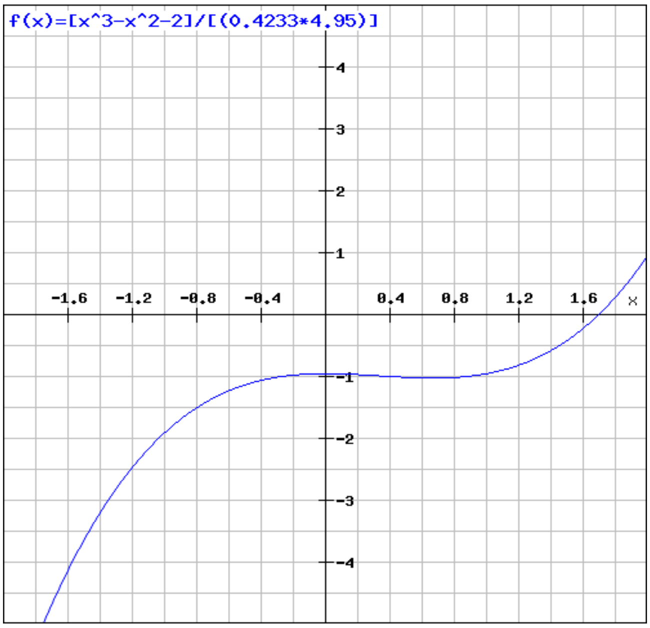


**Figure 10:** Universal M/EI diagram

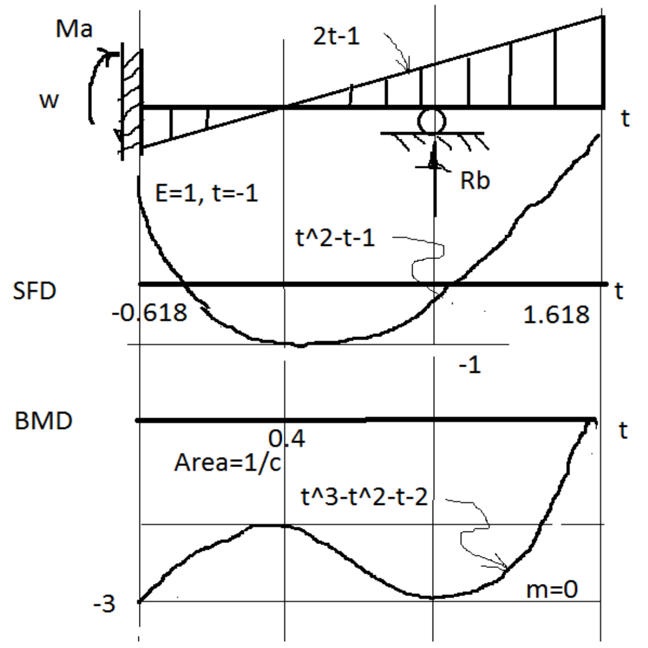


**Figure 11:** Load, shear, and bending moment diagrams.

## Moment

$t^3-t^2-t-2=0$

$(1/2)^3-(1/2)^2-(1/2)-2=26.25$

$\delta=1=P(117.27)/[A\ (0.4233)\}$

$P/A=\sigma=3.587$

$\sigma/Mp+= 3587/938=26.15$

## Work

$W_{Internal}=\int_{(0-L)}=M^2/2EI\ dx$

(where M=moment is this particular case.)

$W=(F\ x)^2/2EI\ dx$

$=F\ ^2(2/3x^3)/(2EI)$ from 0 -L

F is the Superforce=2.667

$=2.667^2\ (2/3)(118)/2\ (0.4233)(1/202)$

$=1/127.5=1/\rho$.

And the Ether:

Shear Modulus G

$1/G=2(1+\upsilon)/E$

$=2(1.27)/0.4233$

$=6=1/G$

$G=0.167=$ monoatomic gas $\gamma$

$W_I=K\int\ (_{0-L})\ V^2/(2GA)\ dx$

$1/\rho=K/A\ dx/(2(1/6))$

$K/A\ dx = 941$

K for a square =1.2

$1.2/A\ dx =941$

$A=x^2$

$1.2\ x^{-2\ dx}=941\ dx$

$1.2\ (-1/x)=941.$

$x=127.5=\rho$

$A=x^2=127.5^2=1625$ (~1623 Navier-Stoke's Solution)

$\Sigma W_{Internal}=W_{Axial}+W_{Bending}+W_{Shear}+W_{Twist}$

$\Sigma W_{Internal}=4\ (1/\rho)=3.13\sim\pi=t.$

## Real work

$\Sigma W_{Internal}=Mom.\ +V$

=P/2(Average Mass +1)

(Note: Atomic Number of Element Te=58)

$=2.667/2[58+1]$

$=1.334(59)=78.667=1/\rho$

For a Virtual Displacenent, $\delta=1$, the Total work done =0

$\Sigma W_{External}=\Sigma W_{Internal}$

$\Sigma W_{Total}=4\ \Sigma W_{Internal}$

$F \times d=(2.667)(118)=4/\rho=4/127.6=\pi$

d=118=Mass of the Periodic Table of the Elements.

## Conclusion

So we see that Statics and mechanics as applied to a force polygon provide useful insights into physical constants. In addition, we show that the physical and spiritual are inseparable. Energy methods are useful is understanding the Ether as a monoatomic gas.

**References**

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2. Laursen HI (1969) Structural analysis McGraw-Hill, The City University of New York, New York.

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