Universal Structural Mechanics

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Abstract
In this paper, we provide some interesting spot calculations from the Theory of Elastic Stability. Certain key constants of Cusack’s Astrotheology are derived from basic structural mechanics’ formula. No attempts for proofs are made. The reader is referred to Timoshenko and Gere’s classic book on stability. Proton Mass was determined to be within the margin of error.

Keywords: Elastic stability; Astrotheology; Moment; Euler’s critical load; Golden mean parabola

Introduction
Consider the beam column. Using our knowledge of Physical Constants derived in Astrotheology math, we can derive other variable, such as energy and time. The Super force is sin t. We begin with a column loaded with that Super force load. Then we move on to a beam column loaded laterally as well as axially. We end with Euler’s Critical load which allows us to derive the maximum mass in the periodic table of the elements (Figure 1).

Refer to Figure 1 showing cusack’s modulus k=cuz=0.4233.

\[ y = \sin \theta \]
\[ y' = -\cos \theta \]
\[ 0.4233 = \text{cuz} = -\cos \theta \]
\[ \theta = 64.95^\circ = 113.37 \text{ rads} \]
\[ = 1/0.882 = 1/\varepsilon_0 \]
And,
\[ \theta = 64.95^\circ = 1/0.1539 = 1/ (1-\sin 1.0085 \text{ rads}) \]
\[ 1.0085 = \text{Mass of H}^+ \]
Continuing.

\[ \int_{0.25}^{\pi} \sin \theta = \left| -\cos \theta \right| \]
\[ (-1) - (1) = 2 = -dM/dt \]
\[ \Delta t/dt = 1 \text{ rad/ 1 sec.} \]
\[ \sin 1 = 0.8415 = 1/118 = 1/M \text{ (Periodic Table of the elements)} \]
\[ EI d^3y/dx^3 + P dy/dx = -V \] [1] pg. 2
\[ (0.4233)I(G) + 2.667(0.8415) = -1.617 \]
\[ I = 0, 4936 \]
\[ 1/I = Y = 0.202 \]
\[ I = 1/Y \text{ where } Y = e^{\cos (2\pi t)} & t = 1 \]
\[ EI d^2M/dx^2 = -M \] [1].
\[ (0.4233) (1/Y)(0.8415) = M = 1758 = 1.00735 \text{ – Mass } H^+ \text{ (Figure 2).} \]
\[ d^3y/dx^3 + k^2y = -Qc x/ [EI] \] [1]
Aside:
\[ k^2 = P/[EI] \]
\[ = 2.7667/(1/0.4233)(1/Y) \]

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(0.4233)(1/Y)(0.8415)=2.667(δ-4/3)
1.50 (δ-4/3)=1
1.5δ=2.00=1
1.5δ=3
\[ \delta=2=\frac{dM}{dt} \]
\[ M=1.77=\sqrt{\pi} \]
\[ d=\frac{1}{F}=\frac{1}{Y} \]

\[ \frac{E}{t} = \frac{t}{dM/dt} \]
\[ dM/dt = t/Y \]
\[ E=tM/dt \times t \]
\[ E=Mc^2 \]
\[ E=\sqrt{M}t \]
\[ E=4.482 \times \pi \]
\[ E=6.65-G \]
\[ EI \frac{d^2y}{dt^2} = Py \] [1]
\[ y=y' \]
\[ EI=P \]
\[ 0.4233(I)=P. \]
\[ I=\frac{2.667}{0.4233}=6.3=1/0.1585=1/[1-sin \, 1] \]
\[ I=1/ \text{moment} \]
\[ \text{Moment}=1/1 \]
\[ F \times d=Y=1/6.3=1585 \]
\[ 2.667d=0.1585 \]
\[ d=0.594=0.6 \]
\[ \text{Circ.} = \text{Area} \]
\[ 2\pi R=\pi R^2 \]
\[ R=2 \]
\[ \text{Circ}=2\pi(0.6)=1/F=\text{Area} \]
\[ E=\text{Work} \times t=Fdt \]
\[ F(1/F)(t)=1 \]
\[ t=1=E \] (Figure 3).

\[ EI \frac{d^2y}{dx^2} = P(r-y) \] [1]
\[ (0.4233)(1/Y)(0.8415)=2.667(4-3/3) \]
\[ 1.50 (4-3/3)=1 \]
\[ 1.5\delta=2.00=1 \]
\[ \delta=2 \]

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Let
\[ y=Q \sin k(l-c)/[P k \sin (kl) \sin k(l-x) -Q (l-c)(l-x)/ P l] \]
\[ Y=\sqrt{3}/2 \]
\[ Y=t/[dM/dt] \]
\[ dM/dt=t/Y \]
\[ Y=E= dM/dt \times t \]
\[ \text{But} \ E=Mc^2 \]
\[ E^2/2=M t^2/2 \]
\( \sqrt{\pi} = \delta - y \)
\( = \delta - 1/F \)
\( \delta = \sqrt{\pi} + 1/F \)
\( 119.6 \times 943/127.6 = 88.3 = e_0 \)
\( \chi u > 1 \text{ when } u > 0 \)
\( \chi u > \infty \text{ when } u > \pi/2 \)
\( M_{max} = -EI y' = M_0 \sec u \)
\( (0.4233)(1/Y)(0.8415) = M_0 \sec (\pi/2) \)
\( M_0 = 1.7582 = 1.00762 \text{ Mass } H^+ \)
\( F = 6.67 = 1.00762 \)
\( F = 6.59 \times 1/152 \)
\( F = G \)
Finally,
\[ P_{cr} = 4\pi^2 EI/l^2 \]
\[ 2.667 = 4\pi^2 = (0.4233)(1/0.202)/l^2 \]
\[ I = 1.77 = \sqrt{\pi} \]
\[ = \sqrt{\pi} = 1.2533^2 \]
Rigidity:
Aside:
\[ EI = F \]
\[ (0.4233)I = 2.667 \]
\[ I = 6.3 \]
\[ \alpha = 2EI/l \]
\[ = 2(0.4233)(6.3)/(1/2) \]
\[ = 126 - \rho \]
Critical Load:
\[ \psi(u) = -3lb/[4l] \]
\[ b = l \]
\[ \psi(u) = 3/4 = 1/s \]
\[ \alpha/\psi(u) = (l/1) = ps = \text{Mass } M \]
Proton Mass: Refer to Figure 4.
\[ \rho k/EI \]
\[ = 127(0.4233)/2\pi \]
\[ = 53.759/2\pi \]
\[ = 938.27 \]
\[ = \text{Proton Mass (Figure 4).} \]
The rigidity of the universe is the density, and the critical load is the Mass.

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loaded column can be used as a model for certain universal calculations. The rigidity of the universe is the density, and the critical load is the Mass. Perhaps those interested could find more in stability theory to explain Cusack’s model of the Universe.

References