

Re: "Dimensional Analysis and Relativity"

Source: <http://sci.tech-archive.net/Archive/sci.physics/2008-03/msg01866.html>

- *From:* ACE <GRAVITYMECHANIC2@xxxxxx>
 - *Date:* Mon, 24 Mar 2008 15:39:27 -0700 (PDT)
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No force is necessary to cause orbital motion. Every orbiting mass m has kinetic and potential energy due to its velocity v as mv^2 and its radius of curvature L as $G (M-m) m / L$. The planets orbit the sun ((roughly the center of the effective mass $(M-m)$ of the rest of the universe)) at a special mean orbital radius to conserve total energy, consistent with the first law of thermodynamics, which states that the total energy of the universe is a constant. The sum of kinetic and potential energies of any orbiting mass m is a constant.

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THE UNIVERSE

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SIR ISAAC NEWTON (1642 - 1727)is best known for his laws of motion and his proposition of a universal gravitation theory, which states that all bodies in space and on the earth are affected by a force called gravity. However, we now know that orbital motion has nothing to do with a force of gravity. I have found that orbital motion obeys the modified first law of thermodynamics. which states that the total energy of the universe is a constant. The total energy of a planet or moon is a constant, because there is no known way

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for its energy to be changed except by radiation of energy or contact with another mass.

Orbiting masses have kinetic and potential energies that are nearly equal, because orbital motion occurs at the only orbital radius where a positive change of kinetic energy is accompanied by an equal negative change of potential energy, complying with the modified first law of thermodynamics.

All of the planets and moons orbit in a manner that is consistent with the modified first law of thermodynamics.

Any orbiting mass, m , such as the earth, has a kinetic energy $m (2 \pi L)^2 / t^2$ because of its velocity, v , as $m v^2$, and a potential energy $G (M-m) m / L$, because of its orbital radius L and the product of the masses m and the rest of the effective mass of the universe $M-m$, where M is the effective mass of the total universe. In the solar system this mass M would effectively be the sum of the masses of the sun and the rest of the masses of the planets and moons of the solar system.

The sum of kinetic and potential energies would be a constant for any particular planet, or moon, because, no force, as a source of an energy change, is available to the orbiting mass (if it is not in contact with another mass). As a result, it continues to orbit at nearly the same radial distance from the center of the mass of the rest of the effective universe, complying with the modified first law of thermodynamics, as the fundamental equation of the universe.

Evird wrote:

"Dimensional Analysis and Relativity"

Over the years the writer has received E-mails which strongly assert that the techniques of Dimensional Analysis ARE OF NO BENEFIT in the study of relativistic phenomena without any justification for that strong statement. Such an assertion can only have been provided by individuals whose inborn ability to think has been severely repressed by excessive education.

This repression of intelligent thought is characteristic of the process by which PhD candidates acquire their degrees. They are well taught the accepted truth at the expense of their ability to question that truth. They

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become, in other words, priests of a religion rather than true scientists.

The fact that the relativistic phenomena involve processes in which the units of measurement are affected by the processes themselves (e.g.;- The Lorentz Transformations of Special Relativity and the Time Dilation of General Relativity) means that an intelligent approach to an understanding requires a technique which enables one to keep track of these effects in a logical manner. This technique is well known and goes by the name of Dimensional Analysis.

Dimensional Analysis is a technique which recognizes the fact that every term in a physical equation MUST have the same dimensional content (i.e.- length, time, force, mass, etc.) if one is not to become involved in the foolish exercise of equating apples and oranges. It has become readily apparent over the years that only three dimensional entities are required. All other dimensional entities can be derived from those three using accepted physical equations. (This conclusion is based upon over a century of observation but, like the fact that only four colors are required to produce a map without color interference at boundaries, has not been rigorously proven to the writer's knowledge.)

It is common in the physical sciences to use the dimensional entities of Mass(M), Length(L) and Time(T) as fundamental (others might be used in their stead without error). The writer, however, chooses to substitute the dimensional entity of Force (F) for the dimensional entity of Mass as being more fundamental. Unlike Force, Length, and Time, Mass is not directly observable. It can only be observed in terms of the force which results when velocity is changed or which results when it is in the proximity of another mass (weighing). The dimensional content of various physical quantities and their relativistic transformations are provided below:

Dimensional Characteristics

Entity Velocity Velocity Gravity
Parallel Transverse

Force (F) (F) 1 Bv 1
Length (L) (L) 1/Bv 1 1/Bg
Time (T) (T) Bv Bv Bg
Energy (E) (FL) 1/Bv Bv Bg
Planck's Constant (H) (FLT) 1 Bv² 1
Velocity (V) (L/T) 1/Bv² 1/Bv 1/Bg²
Acceleration (A) (L/T²) 1/Bv³ 1/Bv² 1/Bg³
Incremental Mass (Mi) (F*T) Bv³ Bv² Bg³
Momentum (M) (F*T) Bv Bv² Bg
Angular Momentum (U) (F*L*T) 1 Bv² 1
Gravitational Constant
(G) (L⁴/F*T⁴) 1/Bv⁸ 1/Bv⁵ 1/Bg⁸
Ergo-Gravitational Constant
(D) (1/F) 1 1/Bv 1
Temperature (&) (F*L) 1/Bv Bv 1/Bg

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Charge (Q) (L) $1/B_v B_v B_g$
Dielectric Constant of Space
(ϵ') $(1/F) 1 1/B_v 1$
Permeability of Space
(μ') $(F \cdot T^2/L^2) B_v^4 B_v^3 B_g^4$

Where $B_v = (1 - V^2/C^2)^{0.5}$ and $B_g = G \cdot M_1 \cdot M_2 / (R \cdot C)^2$

Note:– The Lorentz Transformation for Transverse Force is the reciprocal of that given in texts. The conventionally accepted expression is in error because of the foolish use of Maxwell's Equations in its derivation.

Applying these transformations to the relativistic phenomena provides results which are consistent with ALL observations and allows the Universe to be explained from before and through the big bang and its eventual expansion to an infinite radius. It does this in terms of 3 dimensional Euclidean space and is consistent with the ABSOLUTE validity of the Law of Conservation of Energy. Most important, it is consistent with Quantum Theory and does not require the hare-brained ideas associated with Superstring Theory.

The source material for this posting may be found in <http://einsteinhoax.com/hoax.htm> (1997); <http://einsteinhoax.com/gravity.htm> (1987); and <http://einsteinhoax.com/relcor.htm> (1997). EVERYTHING WHICH WE ACCEPT AS TRUE MUST BE CONSISTENT WITH EVERYTHING ELSE WE HAVE ACCEPTED AS TRUE, IT MUST BE CONSISTENT WITH ALL OBSERVATIONS, AND IT MUST BE MATHEMATICALLY VIABLE. PRESENT TEACHINGS DO NOT ALWAYS MEET THIS REQUIREMENT. THE WORLD IS ENTITLED TO A HIGHER STANDARD OF WORKMANSHIP FROM THOSE IT HAS GRANTED WORLD CLASS STATUS.

All of the Newsposts made by this site may be viewed at the <http://einsteinhoax.com/postinglog.htm>.

Please make any response via E-mail as Newsgroups are not monitored on a regular basis. Objective responses will be treated with the same courtesy as they are presented. To prevent the wastage of time on both of our parts, please do not raise objections that are not related to material that you have read at the Website. This posting is merely a summary.

E-mail:– einsteinhoax@xxxxxxxx If you wish a reply, be sure that your mail reception is not blocked.

The material at the Website has been posted continuously for over 8 years. In that time THERE HAVE BEEN NO OBJECTIVE REBUTTALS OF ANY OF THE MATERIAL PRESENTED. There have only been hand waving arguments by individuals who have mindlessly accepted the prevailing wisdom without questioning it. If anyone provides a significant rebuttal that cannot be objectively answered, the material at the Website will be withdrawn.

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Challenges to date have revealed only the responder's inadequacy with one exception for which a correction was provided.