# A CORRECT DEFINITION OF MASS Copyright 8 July 2015 By Glenn A. Baxter, P.E. www.k1man.com Institute@k1man.com 207 242 2143 (Draft 150708 12:20 P.M.)

#### ABSTRACT

Newton introduced the relation F = ma. He never defined m or mass. Dr. Einstein incorrectly used  $E = mc^2$  or  $m = E/c^2$  to define mass. This paper correctly defines mass using Gravitrons.

# **ARGUMENT**

Gravitrons are a fundamental quanta in nature. See www.k1muan.com/c55.pdf

# ASSUME FOR THE MOMENT THAT GRAVITRON THEORY IS CORRECT

- 1. Motion of molecules becomes random per the second law of thermodynamics.
- 2. Heat radiation flows to the outside and away from a metal ball per the Second Law.
  - o Thus the ball itself has a negative temperature gradient from its center.
- 3. Alalogous is gravity radiation flowing toward the ball surface and then away from the ball.
  - o Outside mass does not need to "encourage" this per Mach.
- 4. To "null"all inertia in the ball you need to orrient ½ of all gravity radiation in 180 degree opposite directions.
- 5. For propulsion you need orient and aim gravity radiation toward another mass in the direction of where you want to go.
- 6. Why does lazer light radiation go in a single direction and so straight? You need a similar thing for gravity radiation.
- 7. Does gravity radiation "prefer" to go from a higher gravity source toward a lower gravity source or possibly the reverse?
- 8. Consider defining the standard aaa battery as a unit of mass. Use voltage as a sedcondary measure of mass. Thus 1.5 volts measured by a voltmeter measures a mass of 1. Connect 10 batteries in series, measure 15 volts, and thus measure a mass of 10. Now reverse odd polarities and now measure 0 volts and a measured mass of 0.
- 9. Now define F = ma "inertia" or m = F/a as a measure of mass.
- 10. Now, as suggested in (4) above, "null" out inertia mass to near zero.

- 11. Now F = ma or a = F/0 or near infinite acceleration.
- 12. With the battery definition of mass or the inertia definition of mass, have you really reduced mass to zero. Of course not.
- 13. What is the kinetic energy of almost infinitely accelerated mass having almost zero nulled out inertia? K.E. = ½ mv^2 or ½ (0) v^2 = very low. Thus you cannot totally null out inertia since conservation of energy requires there to always be some kinetic energy
- 14. Therefore F = ma and Dr. Einstein's E = mc^2 or m = E/c^2 are bad or incorrect ways to define mass.

#### THE PROPER DEFINITION OF MASS

The author defines mass as the scalar number of Gravitrons present in a sample.

### ANALYSIS OF FORCES

A metal ball at non zero temperature will always radiate gravity from its constituant Gravitrons making up the ball. An outside force on the ball will cause acceleration of the ball which causes additional Gravitron radiation in the direction of the acceleration.

All mass in the universe receiving this gravity radiation will cause a force on each Gravitron in the mass and thus accelerate it slightly toward the ball. Gravity radiation is not instantaneous and so inertia felt by the ball must be independent and not depend on other masses in the universe.

However, all other masses kin the universe will eventually accelerate toward the ball and therefore radiate additional Gravotron radiation toward, etc., etc., in infinite oscillations.

# SIMPLE ACCELERATION

An airplane seat back exerting a force on my back feels exactly like gravity pulling me back into my seat. That force on my back causes me to accelerate in the forward direction. That forward acceleration will generate Gravitron gravity radiation in the forward direction. That radiation eventually received by all the mass in the universe will experience a force toward the plane, et

#### INFRTIA

Inertia is experienced two or more Gravitrons are radiating net gravity or receiving net gravity equally in all directions. Inertia is nulled out when gravity radiated from a mass or received by a mass is directional. Thus, as inertia is nulled out, the object will accelerate in the direction from which it is receiving the most Gravitron radiation.

Nulling out inertia requires that you orient random directions and thus the polarity of Gragitron motion in uniform directions, namely ½ in one direction and ½ in the opposite direction.

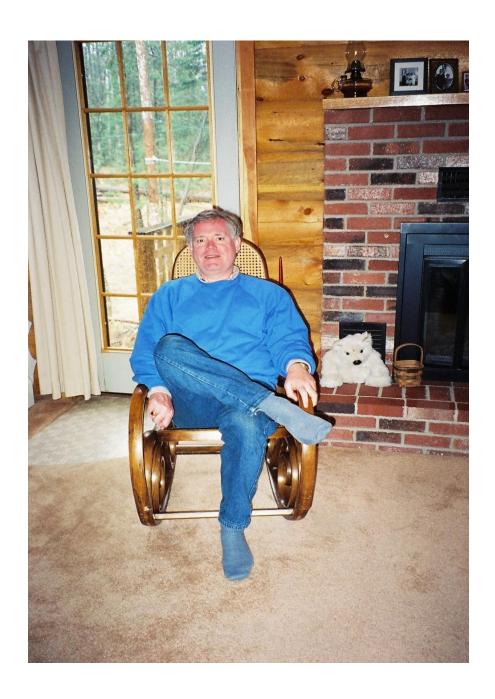
## NATURE OF GRAVITRON RADIATION

Gravitron radiation is similar to radio, light, etc. radiation except it is generated by accelerating a Gravitron mass rather that accelerating a charged mass, such as an electron generating radio radiation. The Gravitron radiation, once received by another Gravitron, becomes attached to it by what is now the gravitational field, similar to an electrostatic field between two charged particles. Exactly how an accelerating electron can generate radio radiation of how an accelerating Gravitron mass can generate gravity radiation is not yet know.

#### **SUMMARY**

The purpose of this paper is to describe the two similar mechanisms of radio, light,. Etc. which have acceleration in common. The second purpose is to correctly explain, for the first time, the connection between gravity and ordinary acceleration.

Mr. Baxter has a degree in Industrial Engineering from the University of Rhode Island and is a Licensed Professional Engineer in Illinois and Maine. He is a graduate of Vermont Academy, which honored him in 1993 as a Distinguished Alumnus with the Dr. Florence R. Sabin Award. It was at Vermont Academy as a student where Mr. Baxter attended a talk and met the very popular relativity author James A. Coleman[3]. Mr. Baxter has been doing research in relativity and physics ever since and is currently Executive Director of the Belgrade Lakes Institute for Advanced Research. His current interests include physics, philosophy, and theology.



Glenn A. Baxter, P.E., at his home in Belgrade Lakes, Maine U.S.A.



Glenn A. Baxter, P.E., age 4, with his dad, Frank H. Baxter (Bachelor of Science Degree, Mechanical Engineering, 1914, Rhode Island State College), and President of Frank H. Baxter Associates, 370 Lexington Avenue, New York City. See <a href="https://www.k1man.com/fhb">www.k1man.com/w10</a> and www.k1man.com/Loons