

New Components of Our Measured Reality

*The use of accelerometers to measure the motion produced by inertial force, centrifugal force, centripetal force, and gravitational force is at the basic foundation of all experimental physics. The paradox here is that these simple measurements are more or less misunderstood by both scientists and laypersons alike. It seems that almost no one is capable of fully understanding the nature of these forces and motions or accepting their measurements at face value. Everyone, including Einstein, seems to have gotten it either backwards, inside out, or upside down. Momentum is the fundamental measured reality and Energy only exists as a calculated idea for the force that produces two equal momenta. Pure energy does not exist. Photons exist, but they are a pure combination of **energy/mass = cC**. Atoms exist as eternal, pure, and equal combinations of **energy/mass = CC**. Pure energy is just the idea of relative motion.*

The Measured Dimensions of Force and Motion

Momentum MS/T is the Measurable Reality

Space is a Non-Dimensional Negative Reality

Momentum is the One-Dimensional Positive Reality

Angular Momentum is the Two-Dimensional Absolute Reality

Energy is a Three-Dimensional Negative Reality

Force and Motion of Gravity is the Four-Dimensional Reality

Gravitational Time is the n-Dimensional Positive Reality

One-dimensional Forces and Motions can be on any Vector

Two-dimensional Centripetal Forces are on a Circular Plane

Three-Dimensional Forces and Motions of Gravity are in a Spherical Frame

The Equations of Mass, Space, Time, and Gravity For Accelerometer Measurements of Force and Motion

Mass Exists in Time/Space $m = t/s$

Space Exists as the Idea of Time/Mass $s = t/m$

Time Imagines Mass in Space $t = sm$

Time Quantifies the Motion of Mass $t = ms$

Intervals of Time are the Energy/Mass of Atoms $t' = T/\sqrt{1 - v^2/c^2}$

The Mass of Energy Increases with Momentum $m' = M/\sqrt{1 - v^2/c^2}$

Mass Has a Position in Absolute Space $= h/2\pi = m\lambda C/2\pi$

Momentum Moves Mass in Space $= ms/t$

Momentum Moves Photons in Space $= m\lambda c$

Angular Momentum Spins Mass in Space $= mrs/t$

Force Measures Momentum in Time $= ms/t^2$

Centripetal Force Measures Angular Momentum in Time $= mrs/t^2$

Energy Divides Force with Velocity $= ms/t^2 = 1/2mv^2 + 1/2mv^2$

Photon Kinetic Energy Moves Mass Through Space $= mc^2/2$

Photon Spin Energy Moves Mass in Space $= mC^2/2$

Gravitational Momentum Creates Orbital Motion $= mrs/t$

Gravitational Force Pushes Us Up through Time $= mrs/t^2$

Gravitational Motion Moves Us Up Through Space $= 1/2gt^2$

Photon Angular Momentum Spins Mass $= m\lambda C/2\pi = \text{constant } 10^{-34} \text{ kg m}$

Atomic Angular Momentum Spins Photons $= m_e a_0 \alpha c = mvr = 10^{-34} \text{ kg m}$

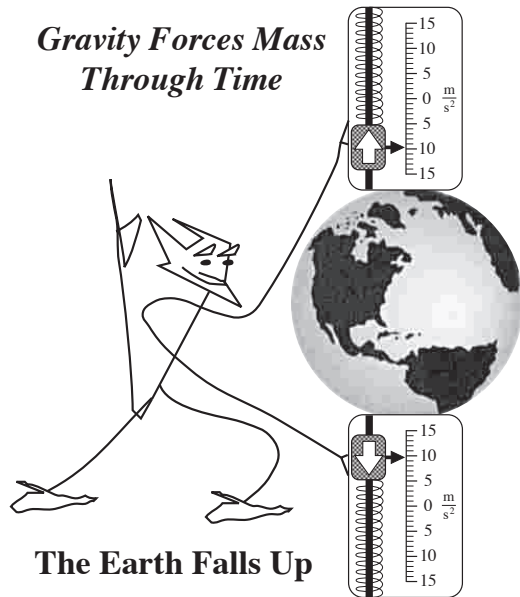
Gravitational Time Slows as Energy/Mass Expands Gravity = Inertia

Accelerometer Measurements of Centrifugal Force and Motion

There are 3 basic quantities in the Newtonian experimental measurement process: Mass, Space, and Time. All conceivable experimental measurements are made with Newtonian accelerometers to quantify individual values for Mass, Space, Time, and Gravity. These values are combined together in the calculations of momentum, angular momentum, force, energy and gravity. Energy is the idea used to divide a single force into multiple values. Gravity is a measure of both three-dimensional force and radial momentum. Whereas momentum and force exist on individual one dimensional vectors, the force and momentum of gravity are measured and calculated at the surface of a three-dimensional spherical frame.

Accelerometers that measure force to calculate momentum, energy and velocity are the only instruments available to modern experimental physicists. All measured values eventually break down into individual changes in momentum. When we watch TV our eyes measure the individual variations in momentum of the photons emitted by the screen. When we measure gravity with accelerometers and clocks, we can only conclude that it is a three-dimensional upward pushing force that produces one-dimensional upward motion. There are no accelerometer measurements that show gravity to be a two-dimensional downward pulling force.

*Gravity Forces Mass
Through Time*



The Earth Falls Up

**The Upward Force of Gravity
Produces Inertial Motion**

Momentum and angular momentum are the fundamental measurable parameters of our physical reality. Linear energy is a calculation to give a relative quantity to momentum and rotational energy is a calculation for an absolute quantity to angular momentum. Momentum defines absolute motion, and energy is a measure of absolute change in momentum. Momentum is a principle of measurement and energy is the idea used to quantify both relative linear momentum and absolute angular momentum.

$e = mc^2$ and $m = e/c^2$ are Wrong and $e/m = c^2$ is Right

Energy/Mass is the absolute and eternal unit quantity of matter. Energy and mass cannot be physically separated in any non-conceptual way. Energy/mass existing in Space and moving in Time is the fundamental physical assumption of all physical measurements. The assumption is that Mass is eternal and when located at a position of Zero Momentum Rest, it has an absolute quantity of one and a momentum of $p = 0$. At this position, Mass = 1, Space = 1, Time = 1 and Gravity = 1^2 . On any momentum vectors relative to rest, mass increases to $M = 1+$ and time intervals increase to $T = 1+$ proportionally to increases in momentum. Deceleration on a vector decreases mass and shortens time intervals. The linear dimensions of inertial Space have a negative reality and are always calculated to remain constant. The radial dimensions of gravitational space have a positive reality that is calculated to expand with gravitational force and motion.

Because they are a single metaphysical assumption, mass, space and, time cannot be measured independently. The only two physical measurements that can be made of the physical interactions of mass, space, and time are relative changes in momentum and absolute changes in angular momentum.

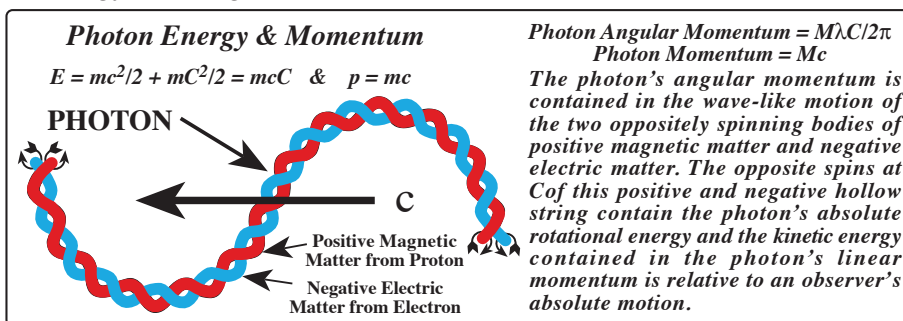
Every body in the universe has an unknown absolute momentum vector that is a combined unit of mass, space, and time $p = ms/t$. When we change and measure a body's momentum, it is done with a force that changes its absolute momentum to a new unknown vector and value. This new measured momentum vector is produced by an unknown combination of acceleration and deceleration. When we change and measure a body's angular momentum, it is done with a centrifugal force that either produces acceleration or deceleration. Changes in momentum, are measured with accelerometers on a single vector as Force $F = mad^?$. *Force equals mass times unknown quantities of acceleration and deceleration.*

Energy/Mass are two sides of the same coin and are always equal and cannot be physically separated except in a conceptual way. A body's value for energy/mass $e/m = v^2/2$ can be either increased or decreased with a force. Energy $e = mv^2/2$ produced by a force is measured with a single accelerometer reading of momentum. Kinetic energy is quantified by dividing $e/m = v^2$ into two or more parts. The total energy of a force is measured with two accelerometers that divide the force into two or more parts $F = mv^2 = mv^2/2 + mv^2/2$.

Energy/mass, is a conserved eternal quantity. The quantity of mass in the universe is always equal to its total energy $e/m = c^2$ and neither quantity ever changes. This is because they are two parts of a whole and cannot be separated from one another except in calculations. When a body is accelerated to increase its energy, its mass is also increased by an equal amount. Mass is energy and energy has mass.

Photon Energy/Mass equals the Speed of Light Squared

All photons have a momentum of $p = mc$ and an angular momentum of $h/2\pi = m\lambda C/2\pi = mCr$. A photon is a matter/antimatter duality composed of a length positive magnetic cosmic string from a proton combined in a wave-like motion with an equal length of negative electric cosmic string from an electron. The angular momentum of a photon's back and forth wave motion is a universal constant of nature $h/2\pi$. The two pieces of cosmic string are also spinning at C in opposite directions, with equal quantities of angular momentum $h/2\pi = mCr$. When these two opposite spins are added together, the total angular momentum from spinning strings is zero. However, total energy of a photon's spinning strings $e = mC^2/2$ can be measured and combined with the energy of its linear motion $e = mc^2/2$ for a total photon energy of $e = mC^2/2 + mc^2/2 = mcC$. The photon's momentum $p = mc$ provides 1/2 of its measured energy and the angular momentum of its rotating mass provides the other half $e = I\omega^2/2$. The energy of its momentum is relative to an observer's motion and the energy of its angular momentum remains constant for all observers.



Momentum produced by a force can only be measured relative to the rest frame of an accelerometer and total energy produced by a force can only be measured relative to the rest frames of two accelerometers. The energy inherent in angular momentum $e = mvr^2/2$ is an absolute and constant quantity that is measured to have the same value in the moving positions of any observers. When a rotating body's mass or radius is changed to maintain constant angular momentum, its rotational energy is also changed. As with momentum, angular momentum contains a body's kinetic energy but it is not a measure of it. Different spinning bodies can have the same values of angular momentum but greatly different rotational energies.