Six Dimensions of Time and Motion
by James Carter

Photon time and linear motion is one dimensional
The rotation of photons and Earth is two-dimensional time and motion
Gravity's upward force is three-dimensional time and motion

Measurements with very accurate clocks show that there are three distinct dimensions to the flow of time as represented by three different motions of matter and photons. Metaphysical time is the continuos idea of time that is common to all dimensions of time. Clocks divide individual dimensions of metaphysical time into intervals of physical time. Photon time, Earth time, and Gravitational time are the three separate dimensions of time that are each measured with a different kind of clock mechanism. All clocks divide time into intervals to quantify one of these three dimensions of time and motion.

These physical time flows, as measured by clocks, are merely three imaginary ideas used to give momentum a measurable quantity $p = mv = ms/t$: These separate temporal intervals establish six different dimensions of spacial motion: One-dimensional photon momentum, Two-dimensional angular momentum and Three-dimensional gravitational force and momentum.

Metaphysical time is merely the idea used to comprehend the motion of mass through space. Time has no external physical existence outside of the person's brain who is contemplating it as a virtual form of motion. Once an interval of time is measured by a clock, it becomes an inert interval of physical time that exists only as an idea of the past. Many people try to believe that time is somehow a real effect of nature and that time is a moving entity that pushes their car down the road or moves through them from the future to the past while they are sitting still. Time does not move. Only matter moves. Time is just a way to conceptualize the motion of matter. Your car makes intervals of physical time with each mile of its motion down the road. Clocks do not measure time because there is nothing physical there to measure. Clocks monitor different types of momentum and acceleration and then quantify this force and motion into intervals of physical time. Clocks record intervals of time by monitoring the speed of light, the rotation of mass and the gravitational force and motion of Earth and other bodies. All three measures of time are based on the validity of the Newtonian dynamics formulas of: $F = ma$, $I\omega = mvr$ and $c = \sqrt{e/m}$.

In the scientific method of measurement, there are only three basic clock designs used to quantify time. They all record units of motion to establish intervals of time based on the conservation of force, momentum, angular momentum and the speed of light. All three different types of clocks are synchronous at a given position on Earth's surface but each will record different physical time intervals when accelerated or decelerated to different locations. The motion that these clocks measure is the dynamics of the mechanical motion of mass relative to inertial space. Clocks measure one of the three dimensions of motion that protons, electrons and photons undergo and record three separate simultaneous time flows. All clocks are designed to measure just

one time flow but their calculated intervals of that flow can be contaminated by the flows of the other dimensions of time and motion.

A simple example of this is a pendulum gravity clock at Earth's equator. This clock is designed to measure and record pure upward gravitational acceleration. However, at the equator, the clock is slowed from its proper rate because some of the upward force of gravity is canceled by the downward centripetal force of Earth's rotational time and motion. At Earth's poles, the pendulum clock runs faster and records shorter time intervals of pure gravitational force and motion without the contaminating centripetal pull of equatorial motion.

Another example would be a photon clock at the equator that monitored the regular beat of a pulsar as intervals of photon time. Clocks on the side of Earth moving toward the pulsar would record a faster rate and shorter intervals than clocks on the other side that were moving away from the pulsar bursts. Two other examples are both pendulum clocks and atomic clocks being moved from the Dead Sea to the top of Mount Everest.

The contamination of clocks with different time flows shows quite metaphorically that gravitational time and motion flows in an opposite direction from inertial and rotational time and motion. An example of this is to calibrate a pendulum clock and an atomic clock at the Dead Sea. Then carry the two clocks to the top of Mount Everest. The atomic clock will now run faster due to the decreased Lorentz transformation and the pendulum clock will run slower due to a lesser acceleration of gravity.

Photon Time is based on the one-dimensional speed of light. Light years and the timing of pulsar bursts are examples of intervals of photon time. The standards for measuring photon time are the conservation of momentum, energy and angular momentum.

Rotational Earth Time is based on the two-dimensional rotations of mass and the absolute directions of acceleration and deceleration. The day and night cycle of the Earth's rotation is an interval of Earth time. The vibrations of the Cesium-133 atom and the ticking of a Harrison chronometer record intervals of rotational time. The standard for measuring Earth time is the conservation of momentum and angular momentum.

Gravitational Time is based on the constant three-dimensional outward flow of gravitational force and motion. The ticking of a grandfather clock and Earth's apparent yearly circling of the sun are examples of intervals of gravitational time. The standard of gravitational time is the surface of Earth's upward force of about 10 m/s^2 and the upward motion generated by that force of about 11 km/s.

1. The One-Dimensional Time of Photon Energy and Mass
Absolute Motion of Photon Mass $p = mc$, $cC = e/m$ and $h = m\lambda c$
Photon Angular Momentum $I\omega = h/2\pi = m\lambda C/2\pi$

The speed of photons c is the definitive measure of mass, space, time and energy in the universe and the photon masslength $m\lambda$ constant is the definitive measure of its dynamic shape and dimension. Photons are antimatter-matter dualities. Their positive and negative components are equal parts of the electron-proton pair that emitted them. Photon angular momentum is the same for all photons and is a measure of their combined mass, wavelength and velocity $I\omega = m\lambda c/2\pi$. Each photon's momentum $p = mc$ is unique and determines its mass. The combination of its momentum and angular momentum determines a photon's energy $e = mc^2/2 + (m\lambda C/2\pi)^2/2 = mcC$. The equations used to describe the dynamics of a photon with mass calculate the same experimental results as the equations that special relativity and quantum mechanics use to calculate the opposite dynamics of a massless photon contained within a field. There are no experiments that show the photon to be massless but all measurements of photons can be interpreted to reveal photon mass. The invented equations of special relativity are used to calculate experimental measurements in such a way as to represent the photon as a massless particle. Simple logic says that when you are measuring a photon's momentum or energy you are measuring its mass. Clever people can then invent equations that calculate the photon to be a massless particle of "pure" energy. You cannot change the character of a photon's Newtonian momentum and energy by simply declaring it to be magical massless point of pure energy.

2. Two-Dimensional Earth Time and Motion of Mass and Energy

Rotational and inertial time are the relationship between the absolute motion of mass and time.
m & t = $\sqrt{1-v^2/c^2}$ and $I\omega = mvr$
Inertial time is a measure of the momentum of Earth through absolute inertial space and the angular momentum of its rotation. Linear momentum is relative time and motion and angular momentum is absolute time and motion. Two dimensional time and motion is measured as the force produced by acceleration and deceleration F = m(a or d). Rotational time is a measure of the radial pull of centripetal force. The standard for rotational time is the conservation of angular momentum.

A body's absolute mass is at a minimum when it is at a position of zero momentum rest. When it is accelerated in any direction away from its rest position, the body acquires momentum and energy that increases its mass and intervals of time.

A body's mass is either increased or decreased by any change in momentum and kinetic energy caused by any acceleration or deceleration. This change in a body's mass caused by motion is the only experimental way to determine the difference between absolute acceleration and absolute deceleration. Acceleration increases mass and deceleration decreases mass and respectively slows and speeds up clock rates. Change in mass changes the rate at which clocks record two dimensional time.

Virtually all measurements of inertial acceleration are combinations of absolute quantities of deceleration and acceleration. Each body's kinetic mass is a perfect record of every change in motion that it has undergone since its creation. Each atom in the Living-Universe has changed

its kinetic mass many times during its long existence of being accelerated or decelerated. Motion induced changes in kinetic mass cause time intervals recorded by two dimensional clocks to change with each change in motion. Measurements show that an atomic clock slows its rate when accelerated and increases its rate when decelerated. This effect has been demonstrated to a high degree of accuracy by the Pound-Rebka wavelength shifts and in the calibration of atomic clocks on GPS satellites.

3. The Three-Dimensional Time of Gravitational Force and Motion

*When push comes to shove, gravity does both but it never pulls.*
The upward force of gravity $g = ms/t^2$ (mass times space divided by time squared)
All experimental measurements to determine the true direction of gravitational force and motion show that it points up and not down as was commonly believed by Newton and many of his followers. Measurements of the magnitude of Earth's gravitational force and motion show a force of $g = {}_{es}V^2/2R_E = 9.8$ meters/sec^2 and an upward motion of ${}_{es}V = \sqrt{2gR_E} = 11,200$ m/s. The gravitational expansion of Earth's matter causes its surface to "fall" upward while bodies falling toward its surface remain inert with unchanging motion. The so called "measured acceleration" of gravity is actually a combination of acceleration and deceleration caused by the slowing of the third dimension of gravitational time and motion. Because of this, the upward escape surface velocity at Earth's surface remains constant at about 11 km/s despite its measured decreasing rate of acceleration.

The principle of gravitational expansion of mass, space and time is merely the opposite and complementary interpretation of Einstein's equivalence principle. In order to support Newton's idea for equations that calculated the force of gravity to miraculously point down, Einstein invented his own equations describing a mechanism for gravity that consisted of an infinite four-dimensional spacetime continuum that could initiate downward change in the motion of falling bodies without producing any measurable inertial acceleration. Einstein saw calculated gravitational time as a single fourth dimension that was coupled with space into a separate entity that he identified as a special kind of aether-like field.

The measurement of gravitational force and motion records just two dimensions of gravitational time. A three-dimensional pendulum gravity clock records simultaneous intervals with other two dimensional clocks. What these clocks do not record is the third dimension of gravitational time that causes the pendulum to slow the rate of its accelerated and decelerated motion caused by the otherwise undetectable gravitational expansion of mass, space and time. The gravitational expansion of the pendulum's length causes its rate to slow in terms of absolute time and space. This real slowing of Earth's gravitational time is hidden from measurement by the increasing absolute size of atoms caused by the gravitational expansion of mass, space and time. It is this slowing of the third dimension of time that causes the measured upward force and acceleration of Earth's gravity g at one point in time to evolve over time into a constant upward escape surface velocity ${}_{es}V$.

Unlike Einstein's universe-wide system of calculated forces and fields, gravitational expansion is just the measure of a very small three-dimensional outward motion at the surface of each atom. This small three-dimensional outward force and motion is all that is needed to explain the measured observations of other one-dimensional gravitational pushing motions throughout the universe and does not account or predict any unmeasured two-dimensional pulling forces.

Photon Time   Rotational Inertial Time   Gravitational Time
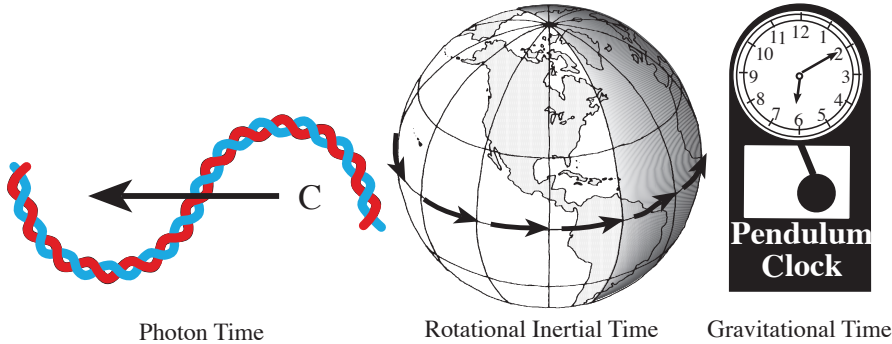
The mathematical equations calculating the gravitational expansion of matter and time relative to a fixed space are basically opposite but complementary to those invented by both Newton and Einstein to illustrate and quantify their metaphysical ideas and calculations describing the force of gravity as a downward pulling force. The equations used to quantify gravitational events work equally well whether you believe gravity is a push or a pull or whether you measure its force to point up or just imagine and then calculate it to point down.

Unlike Newton and Einstein, we don't need any theory to explain the upward force and motion of gravity because it is a principle of measurement. You only need a theory to explain how the force and motion of gravity could possibly point down when we always feel and measure it pointing up. You only need a theory to explain a whole universe filled with fields, dimensions and continuums. You don't need a theory to explain the simple mechanical measurement of individual atoms slowly expanding gravitationally and pushing on one another. Each atom is independent and has no gravitational connections to other atoms unless they are touching. Gravity is not all atoms pulling on each other with an undetectable metaphysical force. Gravity is simply one atom pushing on another with measured physical force and motion.