All types of Masses And Mass Groups, Upon Creation, Will Exhibit No Motion, Linear, Rotational And/Or Vibrational Motion, Singly Or In Some Combination, Which May Later Be Altered By External Forces: A Natural Law STEWART BREKKE, Northeastern Illinois Univ (former graduate student) — In 1905 in his Special Theory of Relativity Einstein suggested that the total energy of any mass at slow speeds was described by the relation $E = mc^2 + 1/2mv^2$. At that time it was not even certain that atoms and molecules even existed ad the only universal motion that could be observed in all masses was either linear motion or no motion. It could sometimes be observed that masses and mass groups could also be rotating and vibrating as well s moving linearly. Later in the 20th century the existence of matter in small forms such as elementary particles, nuclei, ions and molecules had been verified. However, physicists in the 1950's and 1960's discovered that other masses and mass groups such as nuclei, molecules, planets, satellites and stars also may exhibit rotational, and vibrational motion as well as linear motion or even no motion in some combination. Einstein's 1905 total energy equation for all masses and mass groups, and also many other physics equations as well, must be updated to include rotational and vibrational kinetic energy factors for accuracy. The total energy of any mass or mass group at slow speeds must now be $E = mc^2 + 1/2mv^2 + 1/2I(\omega)^2 + 1/2kx^2$. where $(1/2)I(\omega)^2$ is the rotational kinetic energy and $(1/2)kx^2$ is the kinetic energy of a simple harmonic oscillator.

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