

# Redefining Energy-Mass Calculations: New Equations for Massless Entities in String Theory

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**Abstract:** *In this paper, I propose, new equations for calculating energy and mass in the context of string theory. The traditional mass-energy equation,  $E=MC^2$  is limited in its ability to accurately represent the energy and mass of singularities, which have no mass. To address this limitation, I propose the following equations:  $SE=SC^2$ ,  $M=1+N$ , and  $E=(1+N) C^2$ . The first equation is used to calculate the string energy of a singularity. The second equation is used to calculate the mass of any combined light particles, and the final equation is used to calculate the energy of a particle, considering the number of light particles or strings ( $N$ ) that make up the mass particle.*

**Keywords:** String Theory, Massless Energy, Singularities, Energy Equations, Light Particles, Proton Therapy

## 1. Introduction

The purpose of this article is to introduce and validate new equations for calculating the energy and mass of particles, especially focusing on massless singularities within the context of string theory, thereby addressing the limitations of traditional mass-energy equivalence formulas. String theory states that all particles are composed of string-like entities whose vibration at different frequencies determine the particle's property. The proposed equations  $SE=SC^2$  and  $M=1+N$  can be used to calculate the string energy ( $SE$ ) and mass ( $M$ ) of a particle, where  $S$  represents singularity,  $C$  represents the speed of light, and  $N$  represents the number of light particles or strings. In the case of a singularity, which has no mass, Einstein's equation  $E=MC^2$  would give a zero result, while the new equation  $SE=SC^2$  accurately represents the energy in this state. The significance of this article lies in its potential to revolutionize our understanding of massless particles and energy dynamics in string theory, providing a more comprehensive framework that could have profound implications for theoretical physics and our understanding of the universe's fundamental forces and particles. The singularity is a massless, observable energy source, and a new equation,  $E=SC^2$ , is proposed to calculate the energy of a massless singularity. This equation can also be used to calculate the energy of a mass particle by substituting the value of  $M$  ( $1+N$ ) where  $N$  is the number of total strings or light particles. The formula for string energy is  $SE=SC^2$ .

## 2. Derivation of the Equations

In this equation,  $SE=SC^2$  where  $SE$  is represented as String Energy, because the source of this energy does not have any mass when it's not in an observable wave mode.  $S$  is represented as singularity, which is indicating a string wave. The singularity (1) that can also be found in the beginning as an observable light particle, and  $C$  is represented as speed of light. Note that the Singularity in the wave form is tangled with time and light and its wave energy capacity varies from place to place per the laying of the relational environment. The equation  $E=(1+N) C^2$ ,  $E$  is represented as energy when light particle is observed at any environment. At this state, the particle can have mass, so  $M=1+N$  gives the mass where

$N$  is the number of light particles that can be observed, and  $M$  represents the mass.

## 3. Application of the Equations

The equations can be used to calculate the string energy and mass of a particle as follows:

$$SE = SC^2$$

where  $S = 1$  (singularity), and  $C = 3.00 \times 10^8$  m/s (speed of light).

For example, if a particle has 10 light particles or strings ( $N=10$ ), the energy can be calculated as:

$$E = (1+10) C^2$$

where  $S = 1$  (singularity),  $N = 10$  (number of light particles or strings), and  $C = 3.00 \times 10^8$  m/s (speed of light).

*Note that the 10 light particles are formed after the existence of the first singularity, so the mass should be calculated as  $1+10=11$*

## 4. Validation of the Equations

The equations accurately predict the energy and mass of a singularity, which has no mass and is an observable energy source that can emit light and light particles to every direction, externally and internally. The value of the singularity  $N$  (in an observing condition) can be any numerical number depending on the environmental elemental influence. It is a possibility that any mass particle can be divided again into two particles or can split continuously. This continuous division process will take one to a massless observable light particle. A deep thought experiment can only take one through this string particle with an eternal existence where massless spiritual being exists with a spiritual energy. Ongoing religious activities are the proven facts about the existence of spiritual energy.

## 5. Conclusion

The newly proposed equations for calculating string energy and mass provide a novel perspective on string theory and the concept of massless energy. These equations could potentially refine our understanding of fundamental forces

and particles, marking a significant stride towards unraveling the complexities of the universe. My Facebook-provoked notes have energized my thoughts for a spiritual journey, leading to the formulation of an appropriate new energy equation. These equations have the potential to advance our knowledge in delivering and controlling the string energy source for advanced proton therapy treatment and multi-dimensional healing process. However, further validation and exploration in the context of existing theoretical frameworks are essential to fully establish their significance and applicability.

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